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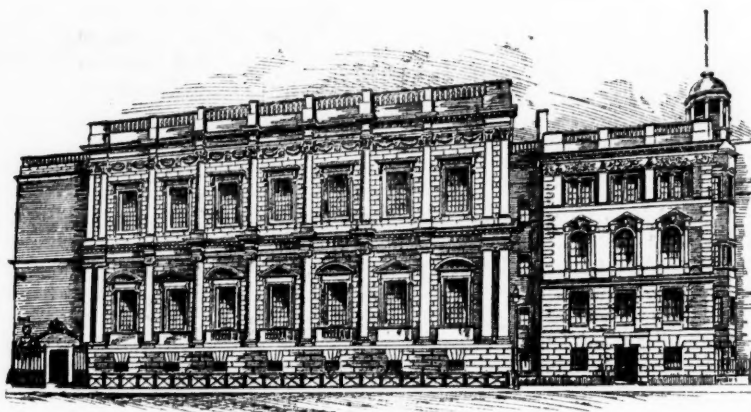
**JOURNAL**  
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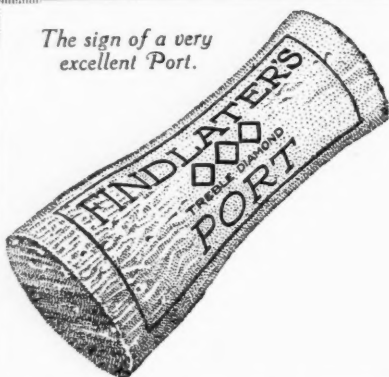
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| 1887. No Medal awarded.  | 1913. Major A. Lawson, 2nd Drags.  |
| 1888. Captain J. F. Daniell, R.M.L.I.                                      | 1914-15-16-17. No Medals awarded.  |
| 1889. Captain H. F. Cleveland, R.N.  | 1918. Lieutenant W. S. R. King-Hall,<br>R.N.   |
| 1890. Captain G. E. Benson, R.A.   | 1919. Colonel J. F. C. Fuller, D.S.O.,<br>Oxford & Bucks L.I.                                |
| 1891. Captain R. W. Craigie, R.N.  | 1920. No Medal awarded.  |
| 1892. Lieut.-Colonel J. Farquharson,<br>C.B., R.E.                         | 1921. Flight-Lieutenant C. J. Mackay,<br>M.C., D.F.C., R.A.F.                                |
| 1893. Commander F. C. D. Sturdee,<br>R.N.                                  | 1922. Major R. Chenevix - Trench,<br>O.B.E., M.C., Royal Corps of<br>Signals.                |
| 1894. Major F. B. Elmslie, R.A.  |  |
| 1895. Commander J. Honner, R.N.  |  |
| 1896. Captain G. F. Ellison, Queen's<br>Royal West Surrey Regiment.        |  |
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| 1910. Sir J. K. Laughton, Knt., M.A.                     |  |
| 1911. Professor C. W. C. Oman, M.A.,<br>F.S.A.           |  |
| 1913. Colonel Sir L. A. Hale.                            |  |





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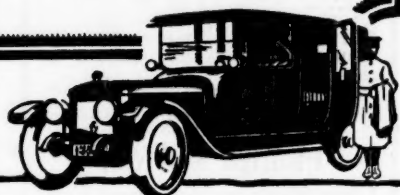
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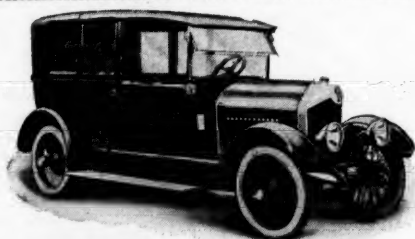
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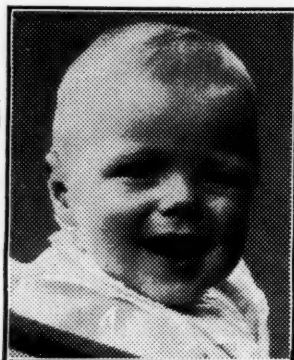
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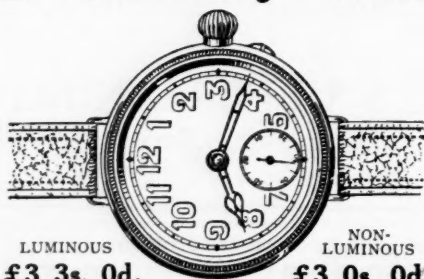
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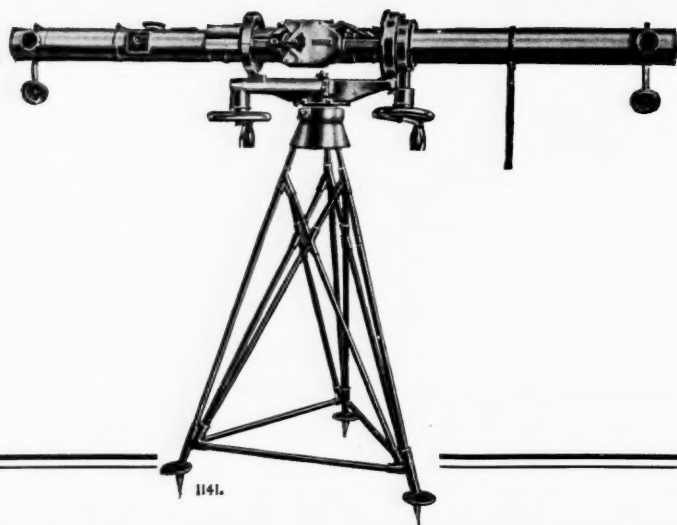
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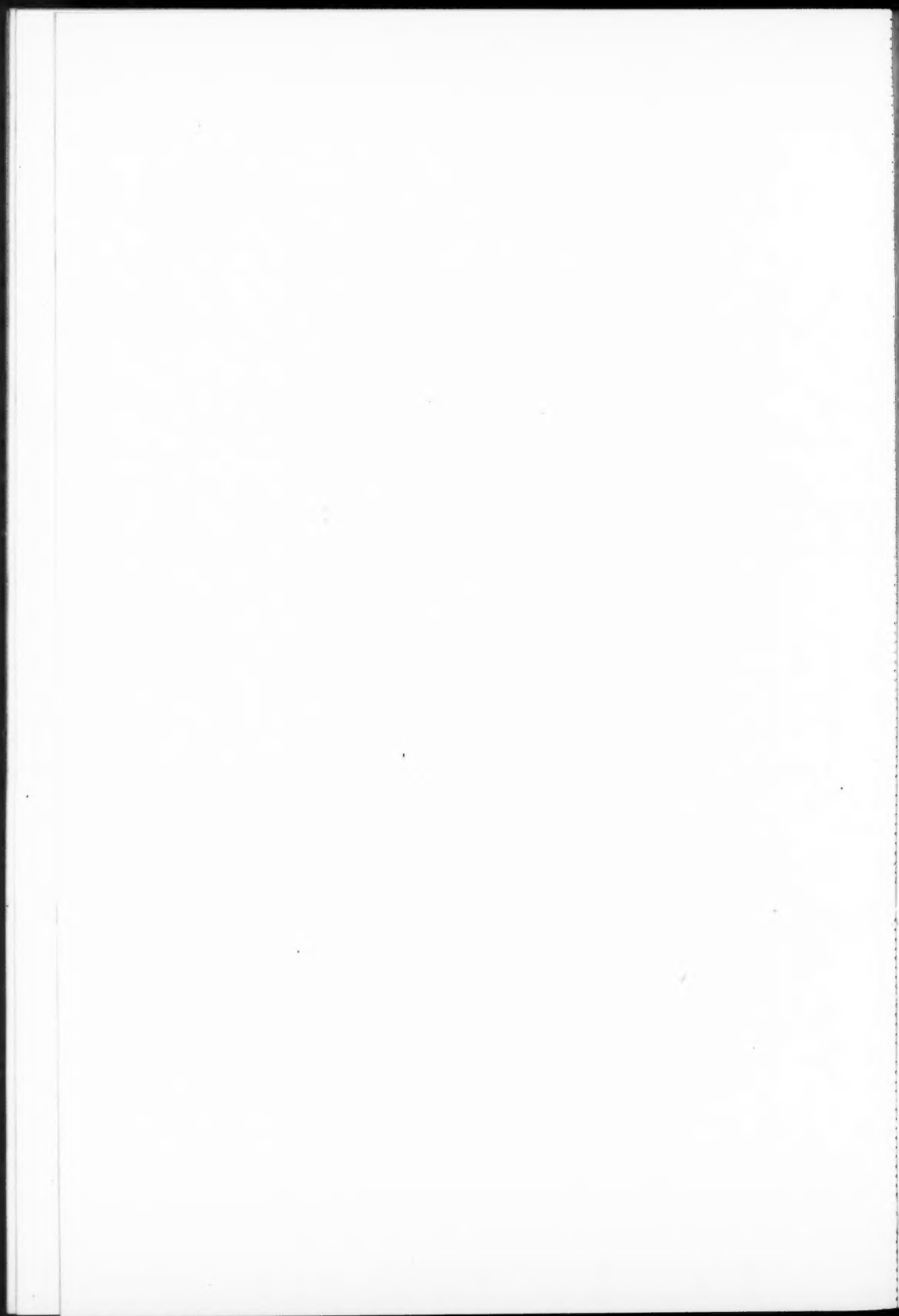




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## SECRETARY'S NOTES.

FEBRUARY, 1924.

### I. Council.

The following Members of the Council, having completed three years' service, retire at the Anniversary Meeting:—Lieut.-General Sir Noel Birch, K.C.B., K.C.M.G.; Major-General E. T. Dickson; Major-General Sir A. Paris, K.C.B.; Captain W. F. Caborne, C.B., R.D., R.N.R.; Colonel Lord Ampthill, G.C.S.I., G.C.I.E.; Brig.-General The Earl of Lucan, K.B.E., C.B., T.D., A.D.C.; Colonel The Duke of Northumberland, C.B.E., M.V.O., and Colonel C. W. Trotter, C.B., T.D., all of whom offer themselves for re-election.

The following vacancies on the Council will be filled at that Meeting in accordance with Chap. V. of the Byelaws:—Regular Army, two; Royal Marines, one; Royal Naval Reserve, one; Militia, one; and Territorial Army, three.

In addition to the above officers, the following have been duly nominated:—Lieut.-General Sir P. W. Chetwode, Bart., K.C.B., K.C.M.G., D.S.O., G.O.C.-in-C., Aldershot; Major-General H. D. Farquharson, C.M.G., Royal Marines, and Captain S. M. Day, C.B., D.S.O., R.D., A.D.C., R.N.R.

### II. Anniversary Meeting.

The Anniversary Meeting will be held on Tuesday, 4th March, at 3.30 p.m. The Council will present their Annual Report and Accounts for 1923, the election to vacancies on the Council takes place, the result of the Gold Medal Essays announced, and other business. The Chair will be taken by the Chairman of the Council, Admiral Sir R. G. O. Tupper, G.B.E., K.C.B., C.V.O.

### III. Membership.

The Council beg to report that during the past year 487 Officers joined the Institution (against 444 in 1922). There were 191 withdrawals and 82 deaths (of which 35 were Life Members), making an increase of 214 on the year.

The Council trust that Members will do their utmost to introduce new Members during the coming year.

The details of Members joining were as follows:—

Regular Army (all arms) ... ..	351
Royal Navy ... ..	46
Royal Air Force ... ..	33
Territorial Army (including Yeomanry) ... ..	24
Royal Naval Reserve ... ..	18
Royal Marines ... ..	6
Militia ... ..	5
Overseas Forces ... ..	4
	<hr/>
	487

The total number of Members on 1st January, 1924, was 5,671.

**IV. Officers joined.**

The following Officers joined the Institution during the months of November, December and January, viz. :—

Lieutenant C. H. W. Clarke, M.B.E., Royal Fusiliers.  
 Captain S. W. Howard, D.S.O., North Staffordshire Regiment.  
 Major W. H. Kelly, D.S.O., R.E.  
 Captain R. B. Deedes, O.B.E., M.C., I.A.  
 Captain K. A. B. Puckle, Royal Marines.  
 Captain E. A. Spencer, R.F.A.  
 Lieut.-Commander H. C. Woolrych, R.N.  
 Major M. J. T. Reilly, M.C., Royal Inniskilling Fusiliers.  
 Captain G. C. Cooper, South Wales Borderers.  
 Captain G. Salt, I.A.  
 Flight-Lieutenant A. H. Wann, R.A.F.  
 Lieut.-Colonel D. E. Robertson, D.S.O., I.A.  
 Captain C. I. A. Dubs, Ayrshire Yeomanry.  
 Captain N. A. Sullivan, R.N.  
 Lieutenant G. C. Adams, R.N.  
 Squadron-Leader C. W. H. Pulford, O.B.E., A.F.C., R.A.F.  
 Captain W. Swinton, M.C., R.F.A.  
 Captain H. R. Briggs, I.A.  
 Lieut.-Commander R. E. Jeffreys, D.S.C., R.N.  
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 Major V. Lansell, late Australian Forces.  
 Lieutenant J. K. Cordeaux, Royal Marines.  
 Lieut.-General Sir C. H. Harington, G.B.E., K.C.B., D.S.O., Colonel King's  
 Second-Lieutenant P. R. Williams, Lancashire Fusiliers. [Regiment.  
 Captain J. L. I. Hawkesworth, O.B.E., East Yorkshire Regiment.  
 Captain M. B. Allsebrook, M.C., I.A.  
 Captain W. B. Moorhead, King's Regiment.  
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 Captain T. D. Daly, M.C., Royal Welch Fusiliers.  
 Captain E. J. O. Ellison, Royal Marines.  
 Captain H. R. Price, M.C., late Rifle Brigade.  
 Lieutenant E. M. E. Coghlan, M.B.E., R.E.  
 Captain N. G. A. Alexander, M.C., Essex Regiment.  
 Flight-Lieutenant T. W. Elmhirst, A.F.C., R.A.F.  
 Lieutenant E. S. C. Parsons, M.C., Wiltshire Regiment.

Assistant-Constructor K. H. Watkins, Royal Corps of Naval Constructors.  
 Major A. F. Hartley, D.S.O., I.A.  
 Lieutenant M. Cunningham, R.N.  
 Lieutenant E. J. H. Douch, R.G.A.  
 Lieutenant D. V. Kennedy, King's Own Scottish Borderers.  
 Lieutenant S. C. Kirkman, M.C., R.H.A.  
 Lieutenant A. Paton, M.C., R.G.A.  
 Lieutenant G. N. Wood, O.B.E., M.C., Dorsetshire Regiment.  
 Lieut.-Colonel L. E. C. Worthington-Wilmer, Somerset Light Infantry.  
 Captain G. R. Russell, M.C., R.F.A.  
 Lieutenant F. S. Reid, R.F.A.  
 Captain V. R. Guise, M.C., R.G.A.  
 Captain H. C. De La Bere, R.A.S.C.  
 Captain A. Whitworth, Royal Marines.  
 Captain G. P. Troughton-Dean, M.C., I.A.  
 Captain W. V. G. Fuge, M.B.E., Royal Corps of Signals.  
 Commander F. Sudell, R.D., R.N.R., retired.  
 Captain C. W. H. Bailie, Oxfordshire and Buckinghamshire Light Infantry.  
 Major H. W. Barker, T.D., 6th Bn. West Yorkshire Regiment (T.A.).  
 Lieutenant W. S. Cole, R.E.  
 Flight-Lieutenant C. J. S. Dearlove, R.A.F.  
 Major R. Miles, D.S.O., M.C., Royal New Zealand Artillery.  
 Flight-Lieutenant G. E. Wilson, R.A.F.  
 Captain A. A. E. Chitty, Queen's Own Royal West Kent Regiment.  
 Lieutenant R. M. Prior, R.N.  
 Major H. N. H. Williamson, D.S.O., M.C., R.F.A.  
 Lieutenant N. O. Hill, Lancashire Fusiliers.  
 Lieutenant H. S. M. Smith, R.N.  
 Captain J. G. des R. Swayne, Somerset Light Infantry.  
 Captain J. P. MacKenzie, R.F.A.  
 Lieutenant E. E. G. L. Searight, M.C., R.E.  
 Paymaster Rear-Admiral H. S. Hall, C.B.E., retired.  
 The Reverend A. E. Smallwood, late Army Chaplain.  
 Lieutenant A. P. Campbell, R.F.A.  
 Paymaster Sub-Lieutenant L. H. Leggott, R.N.V.R.  
 Lieut.-Colonel H. S. Mitchell, D.S.O., I.A.  
 Sub-Lieutenant F. H. G. Oliphant, R.N.  
 Captain R. B. L. Persee, King's Shropshire Light Infantry.  
 Captain H. E. F. Smyth, M.C., Oxfordshire and Buckinghamshire Light Infantry.  
 Colonel C. H. Clutterbuck, I.A.  
 Sub-Lieutenant R. W. Moir, R.N.  
 Flight-Lieutenant J. A. G. Haslam, M.C., D.F.C., R.A.F.  
 Lieutenant C. R. M. D. O'C. Fitz-Simon, M.C., King's Own Royal Regiment.  
 Captain K. I. Gourlay, D.S.O., M.C., R.E.  
 Captain K. Jermyn, I.A.  
 Second-Lieutenant G. T. Wheeler, I.A.  
 Captain C. J. R. Fraser, late Manchester Regiment.  
 Major M. Rawlence, D.S.O., R.E.  
 Midshipman H. W. Howell, R.N.  
 Lieut.-Colonel B. Turnbull, I.A.  
 Second Lieutenant R. J. H. Williams, R.N.V.R.

Captain H. Flint, M.C., 10th Bn. London Regiment, T.A. (R. of O.).  
 Captain E. M. Onslow, Royal Warwickshire Regiment.  
 Major J. R. Warren, M.C., T.D., 4th Bn. Royal Sussex Regiment, T.A.  
 Colonel W. J. Maxwell-Scott, C.B., D.S.O., late The Cameronians.  
 Flight-Lieutenant S. C. Strafford, D.F.C., R.A.F.  
 Captain A. G. Armstrong, I.A.  
 Flight-Lieutenant J. L. M. de C. Hughes-Chamberlain, R.A.F.  
 Flight-Lieutenant E. B. C. Betts, D.S.C., D.F.C., R.A.F.  
 Paymaster-Lieutenant R. F. Vandervord, R.A.F.  
 Second-Lieutenant W. C. Matthews, R.A.F. (Reserve).  
 Flight-Lieutenant F. Leathley, M.C., R.A.F.  
 Lieut.-Colonel C. L. Rome, D.S.O., late 3rd/6th Dragoon Guards.  
 Sub-Lieutenant T. C. Hampton, R.N.  
 Squadron-Leader A. Coningham, D.S.O., M.C., D.F.C., R.A.F.  
 Captain C. de L. Gaussen, M.C., R.E.  
 Major H. B. Godsell, D.S.O., M.C., R.E.  
 Lieutenant C. V. T. Gordon, South Staffordshire Regiment.  
 Captain W. C. Green, M.C., South Staffordshire Regiment.  
 Captain G. L. Mold, I.A.  
 Captain C. D. Moorhead, M.C., Manchester Regiment.  
 Captain S. K. Murray, M.C., I.A.  
 Paymaster-Lieutenant W. J. Dowdell, R.N.R.  
 Lieut.-Colonel F. A. Pile, D.S.O., M.C., Royal Tank Corps.  
 Captain D. Beresford-Ash, Royal Fusiliers.  
 Lieut.-Commander G. W. Wadham, R.N.

It is regretted that in the last list of New Members two Royal Naval Officers were described as late R.N., both of whom being on the retired list.

## V. Lectures.

The Lecture on Wednesday, 19th March, on "The Submarine Campaign in the Mediterranean subsequent to 1916" will be delivered by Captain C. V. Osborne, C.M.G., R.N. Admiral Sir Sydney Fremantle, K.C.B., M.V.O., C.-in-C., Portsmouth, will preside.

## VI. Gold Medal Essay, 1923.

The following additional Essays were received :—

- (6) "Who killed Cock Robin?"
- (7) "No man can serve two Masters."
- (8) "Millions for Defence, etc."
- (9) "Unity of Place—Difference of Functions."
- (10) "Out of the mouth of very babes, etc."
- (11) "Learn to think Imperially."
- (12) "*Pro fide strictus*."
- (13) "In the cause that is righteous, sweet is the smell of powder."
- (14) "*Quot homines tot sententiae*."
- (15) "Jacobus."



## VII. The Museum.

The amount taken for admission to the Museum during the past quarter was :—

£74 18s. 6d. in November.

£61 5s. 3d. in December.

£88 13s. 9d. in January.

### ADDITIONS.

- (3566) Two bullets and a King James II. coin, mounted on silver stand. The two bullets were fired during the last stand of Colonel Baillie's troops at Perambankam, 10th September, 1780, the leaden being British and the iron that of the Mysore troops. The coin was picked up on the site of the battle of Wandiwash (22nd January, 1760), being war money struck in Ireland in 1689 and was probably carried away by one of King James II.'s Irish soldiers to France and brought to India by a descendant about 1759. An Irish Regiment formed part of Lally's troops and fought at Wandiwash. They were given to the lender by the Reverend Edmund Bull, British Chaplain in Madras.—Lent by Lord Pentland, G.C.S.I., G.C.I.E.
- (7784) Five German bank-notes representing 60,650 million marks.—Given by Major-General The Rt. Hon. Sir F. R. Bingham, K.C.M.G., C.B.
- (7785) Cocked Hat of Admiral Sir Charles Napier, K.C.B. (Viscount Cape St. Vincent of Portugal), 1786–1860. It was given to the donor by her mother, Mrs. Jodrell, the Admiral's daughter, who died in 1915, aged 97.—Given by Mrs. Arthur Thorp.
- (7786) An Officer's Coat, long Waistcoat and pair of Breeches of the Royal Regiment of Horse Guards (of Oxford Blues), of the period of King George III.—Given by the Officers of the Royal Horse Guards (The Blues).
- (7787) Shoulder-belt Plate of the Royal Clan-Alpine Fencible Infantry. The Corps was raised in 1798 and consisted of 10 companies and commanded by Colonel McGregor Murray; disbanded in 1801.—Given by Colonel L. C. R. Messel.
- (7788) General Officer's Uniform of about 1830, consisting of Cocked hat, and plume, coattee with epaulettes, gold laced overalls, crimson and gold sash and sword-belt, dress sword and knot; also a Cavalry Sabre (5th Dragoon Guards) with brass scabbard. It formerly belonged to General Sir L. W. Otway, C.B. (1774–1851), who served with distinction with the 5th Dragoon Guards in Ireland (1798) and the Peninsula War, which regiment he commanded, and became a General Officer in 1819.—Given by Mrs. Otway.
- (7789) Infantry Headdress worn 1800–1806, when it was replaced by one of the same design, but of unlacquered leather.—Purchased.
- (7790) Light Infantry Officer's Sword, period 1800–1812.—Purchased.
- (7791) Helmet, Wiltshire Yeomanry Cavalry, worn *circa* 1820.—Given by Captain H. N. Jackson.

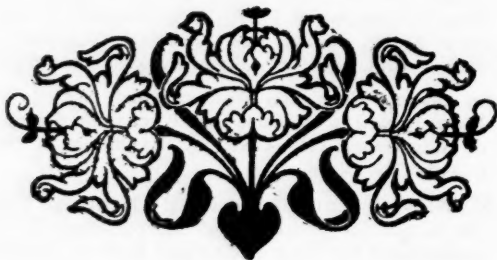
- (7792) A stipple Engraving by Burke of Baron Nelson of the Nile, from an original drawing taken at Palermo, in the possession of Captain I. B. Savage of the Marines.—Purchased.

#### **VIII. The British Red Cross and Order of St. John's Hospital Library.**

This was originally the War Library, which supplied literature to the sick and wounded throughout the War. Its object is now to supply Naval and Military Hospitals and it asks Members of the Institution to kindly send spare books, magazines and illustrated newspapers (not daily papers) now and often to 48, Queen's Gardens, Lancaster Gate, London, W.2, for this purpose.

#### **IX. Regimental Colours.**

The Institution is prepared to arrange for the repairs to Regimental Colours, Cavalry Standards and Guidons in service or otherwise. The average cost is from £8 to £10 a colour.



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### THE POSITION OF THE MILITIA AS THE CONSTITUTIONAL FORCE OF GREAT BRITAIN.

By COLONEL THE RIGHT HON. LORD AMPHILL, G.C.S.I., G.C.I.E.,  
3rd Bedfordshire Regiment.

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On Wednesday, 31st October, 1923, at 3 p.m.

COLONEL THE RIGHT HON. THE EARL OF SELBORNE, K.G., G.C.M.G.,  
3rd Hampshire Regiment, in the Chair.

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ADMIRAL SIR REGINALD TUPPER: My Lords, Ladies and Gentlemen: In the absence of the Earl of Selborne, who is, unfortunately, detained, but who will be here in a few minutes, I have much pleasure in introducing Lord Amptill, who has very kindly prepared a paper for us on a most important subject, namely, the Militia. He will tell you, in the course of his remarks, how the Militia Ballot, and so on, has been swept away by legislation during the War. His paper is so important that I will, without making any further remarks myself, ask him to read it at once.

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#### LECTURE.

I AM fully sensible of the honour of being allowed to initiate a discussion at one of the meetings of this Institution and also of my good fortune in doing so under auspices so favourable as those which are afforded by the presence of our eminent and distinguished Chairman.

In order that I may not come before you under any false pretences, I beg leave to explain that I am not here by virtue of any personal quali-

fication for the task which I have undertaken, for I cannot claim to have made any special study of the question of the Militia.

I am here only as the spokesman of those whom for the time being I have the honour to represent as President of the Militia Club. In that position I am the successor of two distinguished Officers whose knowledge of everything that appertained to the Militia was unrivalled. I refer, of course, to the Duke of Bedford and the late Lord Raglan, both of whom were acknowledged authorities on Army affairs and indefatigable exponents of the views of a large body of men of great experience in military matters. I wish that even a tithe of their wide knowledge and practical experience had been handed on to me with the office of President of the Militia Club, so that I might be better able to set forth the opinions, the principles and the traditions which it is the purpose of that club to maintain and uphold. That purpose of the club, I may add, has always had the cordial approval of the Military Authorities in general and also of the eminent soldiers who from time to time have honoured our meetings with their presence.

It will, I think, be convenient to remind you of the situation in regard to the Militia as it exists at present.

You will remember that on the conclusion of peace there was a serious proposal to abolish altogether the "Special Reserve," as it was then called. That calamitous contingency was fortunately averted, and, in 1921, the Government definitely decided not only to maintain the Special Reserve, but also to restore to the Force the time-honoured and deeply-significant title of "The Militia," of which it had been deprived in 1908. That decision was without doubt largely influenced by the representations, which were made to the Army Council in consequence of a meeting of Officers held in this Hall on the 15th January, 1920.

I may remark in passing, that, in this matter, there is a curious instance of the way in which history repeats itself. There have been threats of abolishing the Militia after every great war in spite of the fact that the Army could not possibly have done without the Militia in any of those wars.

The two latest instances must be fresh within the recollection of all, for the abolition of the Militia was proposed soon after the South African War as well as three years ago on the conclusion of the Great European War. In both cases the indispensable services of the Militia had been entirely forgotten by those in authority until they were reminded of them by mere statement of the actual facts.

When it was decided in 1921, that the Militia was to remain, it was hoped by all who understood the importance of the old Constitutional Force that steps would be taken immediately to reconstitute it, so that the golden opportunity then afforded might not be lost. At that time there were many officers who would have been glad to continue their connection with the Regiment in which they served during the War, by joining or continuing to serve in the Militia, and there were, of course,

thousands of men of other ranks who would have been glad to follow their example. That opportunity, however, has, most unfortunately, been lost and there is no longer any possibility of securing the Officers and men who could have preserved splendid and valuable continuity in the service of the Militia. The hopes of Militiamen were raised by persistent rumours that Commanding Officers were to be appointed to the Militia Battalions and there were many enquiries at the Regimental Depôts as to when recruiting would commence.

In reply to questions in Parliament, the Government excused delay by contending, at first, that it was not possible to reconstitute the Militia until schemes for the reconstitution of the whole of the Regular Army had been framed and approved. At a later stage they pleaded the urgent necessity of retrenchment in national expenditure. The latest definite pronouncement on the subject was made by Lord Gorell on behalf of the War Office in the House of Lords on the 5th July last year.

Lord Gorell, in reply to the question "What has delayed the reconstitution of the Militia?" gave the following answer:—

"The Militia, I think, must be regarded as strictly complementary to the first line of the Regular Army. The description given by the noble Lord was, I think, that the Militia had 'always been the ante-chamber of the Regular Army,' and it must be apparent that until the final plans for the architecture of the whole building have been completed it would not be possible to design the ante-chamber without running the risk of getting it out of proportion to the whole building. That is the cause of the delay and the answer to the first point."

In reply to the question "What financial provision has been made for the Militia?" Lord Gorell said:—

"To that it is possible to give the quite definite answer that a provisional sum of £1,000,000 has been included in the current year's Estimates, so that the reconstitution of the Militia can be started as soon as circumstances permit."

Other questions were met by reference to the answer that the reconstitution of the Militia was necessarily dependent on that of the Regular Army, and that no definite date could be assigned; but there was a more definite reply to the question "When the Militia will be open to recruiting?" Lord Gorell's answer to this was as follows:—

"I should hesitate to give any exact date. I am aware that this has been an expression of strong hope on more than one occasion, dating over a certain length of time; but it is hoped—I am afraid I must again use the same word—that recruiting will be open to some branches of the Militia at any rate during the present financial year."

The financial year in question was that of 1922, which has long

since passed away, for we are now very nearly at the end of the year 1923. The present situation, therefore, is that the Government, no less than all those who appreciate the importance of reconstituting the Militia, have been disappointed of their hopes.

I might perhaps be asked at this stage whether it is worth while to discuss the question at all in the present circumstances, seeing that we all know that the Militia is to be reconstituted, and that the Government hope to do so at the earliest possible moment. We are also well acquainted with the circumstances in which the most rigid retrenchment of national expenditure has become essential, and there is nobody who desires to see any increase of public expenditure which can be safely avoided. Is it not better, therefore, that we should rest content with the assurances which we have obtained and patiently await further developments?

My answer to any such objections would be as follows :—

We are at present at a juncture when it is particularly desirable, and indeed necessary, to discuss the future of the Militia. We need, first of all, to clear our own minds and revise our opinions so far as the altered and changing circumstances oblige us to do so. The circumstances have been altered by the Great War and the lessons of experience which it brought us. Circumstances are changing on account of the delay which has occurred. It is impossible to remain *in statu quo* in this particular case, since every month of delay must make it more and more difficult to reconstitute the Militia at all. The most serious part of the problem of the Militia in the days before the War was how to get Officers, and the difficulty of that problem has been intensely aggravated by various circumstances to which I shall take occasion to refer later on.

It may, however, be further objected that there is no need for us to have any opinion at all. We shall not be consulted any more than our predecessors were and it will only be open to those of us who survive to point out, as the result of our practical knowledge and experience, where the Government go wrong in any scheme which they may thereafter adopt; but even that will be waste of breath, as our predecessors did the same thing and no heed was paid to their advice even when events had definitely proved that they were right.

My answer is that, since hope springs eternal in the human breast, we might be consulted. You never can tell. If we were consulted we should look exceedingly foolish if we did not know what to say for lack of previous consideration, and neglect of the commonsense precaution of meeting together to compare notes, and arrive at opinions on which we can all agree. Besides that, there is the necessity of informing the public in general and Parliament in particular not only of the views of the man on the spot—that is to say, the Militiaman with actual experience—but also of the past history and performance of the old Constitutional Force. The public know nothing at all about these things, and the Press are not likely to inform them, unless we provide the Press with the facts and figures and the occasion to disseminate the informa-



tion. There are, moreover, precious few men in either House of Parliament at the present time who know anything at all about the Militia and, incredible though it may seem, the deplorable fact is that ninety-nine out of a hundred are not the slightest bit interested in the question. But I must go further than that, although I do so with reluctance and considerable diffidence. The War Office and the Military Authorities have not as much knowledge about the Militia as they ought to have. They never have known much about the Militia, and I am entitled to say that because it has been admitted by some of the highest Military Authorities. As I shall presently show you, the War Office deliberately refused to provide itself with those means of keeping in touch with the conditions and requirements of the Militia which were persistently but vainly recommended by Militia Officers.

It is for these reasons that it is particularly incumbent on the small body of men who know the Militia and appreciate the importance of that factor in the British Constitution to furbish up their knowledge of history, to refresh their memories of their own experience, to dig out the facts and figures which are stored in the disused pigeon-holes of their brains and thus to be prepared to furnish explanations and advice to any who may desire to have them.

Our inquiry naturally resolves itself into three main questions, which are: (1) Is the Militia worth preserving? (2) Can the Militia be restored? (3) What is the best way of restoring the Militia?

Let us examine these three questions in turn and see to what conclusions they lead us.

Let us, first, consider whether it is worth while to preserve the Militia at all, for, if we come to the conclusion that, in the altered circumstances of our time, the Old Constitutional Force has become a useless anachronism, it will not be necessary to dwell for long on the other two questions.

It will be agreed that in the consideration of national affairs it is not wise to take a purely utilitarian view. Principle is no less important than practice, because principle is the only sure foundation for laws and usages.

Now, the very name which has been accorded by centuries of usage to the Militia—that of the Constitutional Force—implies that its existence is in accordance with the fundamental organic law and principles of the government of England.

The Militia is, in fact, a part of the actual foundation of the State, and, that being so, it must at once occur to us that the removal of part of the foundation is likely to endanger the superstructure. You can, of course, remove foundations piecemeal if you are able to underpin the building, and quickly replace the stones or bricks which you remove, with new ones. If this analogy is true, it follows that it would be dangerous to do away with the Militia unless you had something to put in its place before any crack or subsidence occurred in the structure above.

The only thing that could take the place of the Militia is something



equally solid and suitable for a foundation—that is, something devised on basic and organic principles—and there is no such thing except Universal Military Service. We were forced to adopt that principle during the War, but we have rashly and unwisely, as I think, discarded it already.

The abandonment of the principle of Universal Military Service was a re-actionary measure, a retrogression from the path of democratic progress. The true conception of democracy is that which assigns not only equal rights and opportunities but also equal duties to all citizens, and, unless you deny that the first duty of any Government is to provide for the safety of the State, you cannot get away from the axiom that it is the first duty of every citizen to take part in the defence of the State.

That vital political principle was for centuries embodied in the Militia and if it had been otherwise the Militia could not have been designated the "Constitutional Force." The principle was actually asserted in the Militia Ballot Act, which generations of Englishmen had been content to leave on the Statute Book. And although it seemed to be a dead letter, no Statesman ventured to press for its repeal, until the late Government, which, owing to the circumstances of the War, had ceased to act in a constitutional manner, destroyed that last vestige of the ancient military system of the country.

The Militia Ballot Act was repealed under cover of a long list of obsolete Militia enactments which were obliterated by the "Territorial Army and Militia Act" of 1921, and the deed passed unnoticed in a Parliament which was jaded by the War and unduly optimistic as to the advent of the Millennium. It was quite unnecessary to repeal the Militia Ballot Act and, in so doing, the Government violated a principle which for centuries had represented the will of the people and had never been seriously questioned or challenged by their representatives. It would have been better to amend the Militia Ballot Act than to repeal it, for in that way we should have preserved continuity of tradition and principle, while we took a step in democratic progress in conformity with our recent experience and manifest requirements for the future. The Ballot is, of course, a hopelessly antiquated method of raising soldiers and nobody would even suggest now-a-days that it should be used. It is ineffective and unfair and when it is attended by the option of procuring substitutes it is contrary to all democratic principle. The only thing in the Militia Ballot Act which ought to have been preserved was the principle on which it was based, namely, the principle that it is the first duty of every citizen to take part in the defence of his country.

Now, here is a point which cannot be too strongly emphasised and it will be useful to recall a fact which is too little known.

Until three years ago, but for the annual suspension of the Militia Ballot Act (which was merely a distorted form of the older law of the universal obligation of military service) every able-bodied man in the United Kingdom was liable for service in the Militia. Therefore universal military service is in accordance with British traditions and one of the

constitutional usages of the nation. Some words of the great statesman and orator Burke are worth quoting in this connection, for it was he who said that "An armed people is the true constitutional Militia of the Kingdom."

There is another interesting point about that Militia Ballot Act of which it is worth while to take note in passing.

The application of that Act was "Conscription" in the true sense of that much misused term. Therefore, while the Militia Ballot Act remained on the Statute Book we were the only nation in Europe which had conscription. Every other nation had long since abandoned Conscription in favour of the more effective, more just, and more democratic system of Universal Military Service. But that striking fact was deliberately concealed from the people by Statesmen and Politicians, who ought to have known better. They persistently misused the word "Conscription" in order to prejudice the cause of National Service and misled the public into a belief that the benighted foreigner was groaning under the tyranny of "Conscription" from which we alone were free, which was absolutely contrary to the actual facts of the case. It cannot be too often insisted that Conscription is one thing and Universal Military Service is another.

Conscription is a system under which men are chosen by lot for compulsory enrolment in a professional Army with an option for the rich to purchase substitutes among the poor.

That manifestly unjust system was long ago abolished all over the Continent, and it was a flagrant and mischievous misuse of terms to apply the word "Conscription" to the system by which we reinforced our Armies during the Great War.

Politicians, however, are very fond of the familiar trick which is best described by the old saying "Give a dog a bad name and hang him."

But *revenons à nos moutons*.

The people of England have always been jealous of the existence of a standing Army, lest it should be used as a menace to their liberties.

The great object of King Charles I. was to obtain a standing Army, but the popular party in Parliament offered a determined opposition to that design.

The outbreak of the Civil War ultimately turned on the question of the command of the Militia, but it was in the Civil War that the system of standing armies in this country originated. Cromwell's use of the regular troops which he had been empowered to raise by the "Instrument of Government" in 1653 excited amongst all parties a deep-rooted antipathy to a standing Army. In 1673, after fresh levies had been raised for the third Dutch war, the Commons resolved "that the continuing of any standing forces in this nation, *other than the Militia*, is a great grievance and vexation to the people."

The Bill of Rights in 1689 expressly declared it illegal to raise or keep a standing Army within the Kingdom in time of peace, except with

consent of Parliament, and this declaration has been regularly repeated ever since the Mutiny Act, which was passed for the first time in 1688 for one year only and annually renewed ever since.

I have recalled these facts in order to explain why the Militia has always been called the "Constitutional Force" in contradistinction to all other forces, which have been regarded as non-constitutional. The people of England have always tolerated the Militia from the earliest times of our history as a nation, while they have often been distrustful of other Forces and impatient of their existence, and the reason is that the Militia was always regarded as the people's own army.

Before leaving this part of the subject it may be appropriate to recall that, in 1756, Parliament decided that "a well ordered and well disciplined Militia was essentially necessary for the safety, peace and prosperity of the Kingdom;" and at recurring intervals there have been similar utterances bearing upon the importance of the Militia as an integral part of the Constitution which might be quoted, without prejudice to full admission of changed circumstances and the need of reformed methods.

But enough has been said to show that there could hardly be a greater breach of national tradition than the abolition of the Militia. No such change should be made without a popular mandate, sought and obtained in the constitutional manner at a General Election. It would be utterly unconstitutional for the Government to do away with the Militia by administrative order or by allowing the Force to perish from inanition.

But now let us pass from the question of principle to a consideration of actual practice.

Is the Militia worth preserving from the practical point of view? How far has the Militia been useful in the past and in what way is the Force likely to be useful in the Future? Those are the questions which the Government will have to ask themselves and put to the people before they can rightly decide whether the Militia ought to be retained or not.

It would be impossible, in the time allotted to me, to give even a hasty sketch of the whole history of the Militia. I take it that the facts are generally known to this audience. It must suffice to recall a few salient facts of more recent times which, strangely enough, are either unknown to our rulers or else deliberately ignored by them, while the general public has never received due instruction in regard to those facts.

There was, for instance, a recent occasion in the House of Lords when a former Secretary of State for War showed himself entirely ignorant of the fact that the Militia had served in the South African War, and persisted in a foolish opinion that the Militia had never been much more than a means of pastime for county gentlemen. Not even the timely intervention of our eminent Chairman and the presence of a distinguished officer who had taken his Militia Battalion to South Africa were quite able to dispel ignorance which was obviously the result

of unthinking and ill-informed prejudice, although the unquestionable fact is that 61 Battalions, 6 Batteries and 4 Royal Engineer Companies of the Militia Force went to South Africa, while 9 Battalions served elsewhere overseas. In all, 102,800 of all ranks served abroad.

What can you expect of Parliament when you find such incredible ignorance in Ministers who have all the resources of the War Office for their information?

The fact is that hitherto the Militia has been indispensable to the Regular Army. There is not one of our great campaigns which could have been brought to a satisfactory conclusion by the Regular Army without the support of the Militia.

In 1914 the Expeditionary Force could not have gone abroad at once unless the Militia (or Special Reserve as it was then called) had been there and ready for simultaneous mobilisation. The Expeditionary Force could not have kept the field for three months without the support of the Special Reserve, and, what is more, the Territorial Force could not have been liberated for training, nor could the New Army have been formed, unless the Special Reserve had been there to guard the coasts and to provide a nucleus of trained officers and men for the new organization.

Those were services which materially helped us to win the War, but they have never been acknowledged and, as soon as the War was over, it was proposed to ignore them altogether and do away with the Special Reserve.

But the question which must occur to any one with even a superficial knowledge of our military history is: What have we got to put in the place of the Force which has always provided the necessary means of expanding the Armies in the Field in time of war, and has made it possible in times of peace to raise a sufficient number of recruits for the Regular Army under the voluntary system?

It must surely be apparent that there is danger to the superstructure of our Military System if you remove an essential part of the foundation, even for a time, without providing some other support for the building.

But to return to my story, which I shall confine to a brief retrospect of the past 150 years.

During the Peninsular War—that is, from 1793 to 1810—the whole of the Militia was embodied, and the Regular Army was very largely recruited from it. A complete Militia Brigade served in the Peninsula, and I cannot better describe the value of their services than by quoting the words of Lord Castlereagh. Referring to the one hundred thousand men sent out by the Militia, Lord Castlereagh said:—

“We could not have kept possession of Portugal, or have sent forces to co-operate in the deliverance of the Peninsula at large, and taken up that menacing position on the frontiers of France which our Army now occupies; we should have been shut up within the bounds of our insular policy, and could not have set that glorious example to other nations, or borne our share in the general exertions which have been made for the

deliverance of Europe. Parliament ought always, therefore, to bear in recollection that it is to the Militia we owe the character we at present enjoy in Military Europe, and that without the Militia we could not have shown that face which we have done in the Peninsula."

The same thing happened in the Waterloo campaign, and at the Battle of Waterloo many of the men were still wearing their Militia uniform.

One of the last speeches made by the great Duke of Wellington in the House of Lords was that in which he spoke in the highest terms of the services rendered by the Militia in the "War of Freedom."

The statesmen of to-day, however, are different to those of a century ago, and not one of them has uttered the slightest acknowledgment of the services rendered by the Militia in the recent and even more momentous "War of Freedom."

During the Crimea and the Indian Mutiny from 1854 to 1860, the whole of the Militia was again embodied and provided large reinforcements for the Regular Army. Certain battalions served abroad, and a great number of men volunteered for active service.

I have already described the services of the Militia in the South African War, and *the point to bear in mind is that at that time the Militia was our only military force which was able to provide COMPLETE units of itself for active service*, and to do that after having sent many of its best officers and men to the line.

But the incomprehensible prejudice of the politicians against the "People's Force" prevailed, and an impression was created that the Militia did little except cause anxiety to General Officers on lines of communication. How far that was from the truth is proved in the orders, speeches and letters of the Generals themselves, many of which are quoted in the Duke of Bedford's pamphlet, entitled "The Destruction of the Militia," which contains a speech delivered by him in the House of Lords on the 21st March, 1907.

But in judging our present and future requirements we must, of course, be largely guided by our most recent experience.

Did the Special Reserve, the lineal successor of the Militia, fail the country in the hour of need in 1914 and the four subsequent years? You will find nothing in the records of Parliament or in the utterances of the leaders of the nation to give you a definite answer to that question. But there are certain facts which cannot be disputed, and are well within the knowledge of every regimental officer of the original Expeditionary Force who still survives. Let us see what those facts are.

By the time the War had gone on for twelve months, very few Regular officers were left in any line battalion at the Front, and the complement had been made up with officers from the Special Reserve. In the later stages of the war, many Regular battalions were officered entirely by commissioned ranks trained in the Special Reserve. The same applied to other ranks, and it is not too much to say that



the glorious reputation of the Expeditionary Force of 1914 was amply and nobly sustained in every regiment by soldiers trained in the Special Reserve. The fact is that the Army could not have done without the Special Reserve during the War. The Expeditionary Force could not have been sent out immediately, and it could not have kept the field for three months unless the Special Reserve had been behind it.

And all that time the Special Reserve was performing a threefold task. From the first moment, it was sending out drafts and reinforcements to the Regular Army; it was relieving the Territorial Force of the duty of defending our coasts, for which that Force was not prepared, and it was providing a nucleus of trained soldiers for the formation of the New Army.

So far as returns are available, it has been ascertained that the average number of officers and men trained and despatched to the battalions in the field per Special Reserve unit was 667 officers and 17,458 other ranks. This gives a total of 67,307 officers and 1,763,258 other ranks. It is a rough estimate, but it is generally correct, and it is on the low side, as it only relates to the Infantry. No records are available for the Cavalry, Artillery and Engineers. But the figures given speak for themselves. If you take the total number of men raised in the British Empire at about eight millions, you will see that the Special Reserve trained and despatched to the Front approximately a quarter of that gigantic total. In addition to this, the Special Reserve sent six Infantry battalions and thirteen Royal Engineer companies to the Front as units and maintained them to strength. The pity is that all the Special Reserve battalions were not eventually sent out as units, which could have been done and ought to have been done. But this is a point on which I shall have more to say later on.

There is one more reason why it is worth while preserving the Militia, and it is a strong reason and a practical one to boot.

There are certain classes, both of officers and men, to whom no form of military service is possible except that of Regular Army or soldiering in the Militia. Those are the classes of officers and men who in the past have won and maintained our Empire.

The Militia was recruited from the working and labouring classes, and the officers were gentlemen to whom it was impossible, for one reason or another, to serve on Volunteer lines. The conditions of Militia service, and particularly the annual training of four consecutive weeks, suited those classes; but occasional training on the Volunteer system throughout the year was impossible for them. Those classes still exist, and if you do away with the Militia you entirely exclude them from military service! You throw away the opportunity of training a part of the best fighting material in the country. Surely it is that way that madness lies! There are still some gentlemen who, with the best will in the world, cannot fit in Territorial Army duties with their ordinary avocation, but could manage a Militia training. And there are many

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men in the country districts who live too far from any centre to be available for the Territorial Army, but could be enlisted in the Militia, and you find among them the very best stamp of soldier. There is also the rougher element in the towns, splendid fighting material, which does not get roped into the Territorial battalions because it is not fancied at the social clubs, smoking concerts and dances which form an essential part of the life of the Territorial Army.

There can be no greater mistake than to suppose that you can catch every kind of fish with one kind of net. So long as you retain the Voluntary system, you must also retain the various forms of military service which suit the several classes, or you will lose some of the best of your fighting material.

Assuming, for the sake of argument, that we are all agreed that it is worth while to preserve the old Constitutional Force, the next question which arises is whether it is still possible to do so.

I am very much afraid that it may already be too late. You can restore life to the apparently drowned by artificial respiration if you look sharp about it, but not after much delay. Similarly, there is a stage at which it is no longer possible to restore the corporate spirit, the *esprit de corps*, in short, those things which rest upon tradition and are essential to continuity, and are the very breath of life to a body of men which has been kept for some time in a state of suspended animation. I greatly fear that there has already been too much delay about the re-constitution of the Militia, unless indeed the blows dealt to the old Constitutional Force during the past fifteen years were anyhow mortal. Among many such blows there was one which, in my opinion, was well-nigh fatal.

And that was the cruel, unnecessary and humiliating refusal to send the Reserve battalions overseas as units. That was a fatal blow to the prestige of the Militia, and a complete departure from all the precedents established in the long and honourable history of the old Constitutional Force. It was, moreover, quite unnecessary, and altogether contrary to the principles of reinforcement which we slavishly copied from the German system in every respect except this one.

Special Reservists fully recognised the necessity of keeping the Reserve battalions at home in the first instance, but to do so throughout the whole course of the War, was contrary to the expectations which they had been led to entertain. There would have been no Special Reserve at all in 1914 if it had been clearly and definitely explained to officers and men that they had no prospect whatever of going out as units. All the history of the past, no less than the assurances of the Military Authorities, led them to expect that they would, in due course, have their turn of service overseas, and those expectations were eagerly cherished until the end of the third year of the War.

Over and over again, the Reserve Battalions were at a strength equal to that of an ordinary Brigade, namely, between two and three thousand men, and on each of those occasions it would have been easy



to adopt a fissiparous and natural course, namely, to send out a battalion, and at the same time to leave behind a draft-producing unit all the more efficient for the recognition of regimental traditions and the desire of all soldiers to serve in their own regiment under their own officers. Such battalions would have had the cohesion and the spirit which come alone from regimental *esprit de corps* and long tradition, and in that respect they would have had an advantage over all the units of the New Army which had no common tie, and nothing behind them. It is true, of course, that practically every Militiaman or Special Reservist served abroad, but that is not the same thing for the Militia as service abroad by battalions.

It is difficult to resist the assumption that this cruel blow to the prestige of the Militia was inflicted deliberately, for the purpose of destroying the Force as soon as the War was over; and I cannot imagine any self-respecting man joining the Militia in the future, unless there is a positive pledge that, in case of future war, the Militia will again reinforce by battalions as they did in the past, and as soon as the return of convalescents and the training of recruits has made it possible—as it would be without a day's dislocation—to replace the draft-producing unit.

Another blow was dealt at the prestige of the Militia in 1921 when the delay about reconstitution deprived the Force of the opportunity of coming forward in aid of the Civil Power in accordance with its historic *rôle*. If the Militia had been reconstituted it could have been employed, as it was in 1666 in the Great Fire of London, in 1780 at the Gordon Riots, in 1812 at the Luddite disturbances, and many other occasions, and it would also have been the means of avoiding immense expense and the temporary disintegration of the Territorial Army. It is, of course, right in principle as well as in accordance with historic precedent, that the Constitutional Force should defend the Constitution when it is menaced by any seditious or revolutionary movement. It is also acceptable to the nation that the People's Force, which is how the Militia has always been regarded, should be called out to defend the liberties of the people when they are threatened by armed rebellion.

Another very serious obstacle to the reconstitution of the Militia at the present time is the fact that a number of officers who were given Special Reserve commissions during the War were deprived of those commissions immediately the War was over, in a manner which was not only ungracious to the last degree, but also of very dubious legality. Many of those officers would have been glad to retain their commissions so as to preserve their connection with the regiment in which they had the honour of serving during the War, and very valuable they would have been, with all their war experience, for reconstituting the Militia. Moreover, until the resumption of Militia trainings, they would not have cost the State a single penny beyond the retaining fee of £20 a year—a small price surely to pay for the preservation of such valuable assets. But those officers have now gone beyond recall, and they will not be available for reconstituting the Force.

Enough has been said to make it clear that there are extremely serious difficulties in the way of re-constituting the Militia, and this is the moment to call attention to the significance of the time-honoured name which has happily been restored.

You may be able to re-constitute the Militia, but you cannot possibly re-constitute the Special Reserve. There is a great distinction to be made between the two systems which are respectively connoted by those two names. The new system, which was established under the inept, un-military and unpopular names of Special Reserve and Extra Special Reserve—the latter was ridiculously suggestive of a vat of wine or a brand of cigars—cannot be restored, for the potent reason that it is hopelessly unpopular. I should be the last to deny that it was a success during the War. It was splendidly effective and successful, but that will not induce men in the future to undertake a form of service which they always distrusted, and detested still more when it came to actual warfare. The system was successful simply because every man was out to sacrifice himself for the good of the national cause, and not because of any inherent merits of the scheme, which was unsound in principle and uncongenial to the manhood of the nation.

It is a case of "once bit, twice shy." The men are not going to submit themselves to "general drafting" again, now that they know what it means. That liability was never frankly explained to the Special Reservist before the War, and it was dexterously obscured in the leaflet and posters used for recruiting. The word "drafted" was carefully avoided in the "notice paper" and the "attestation sheet," although the unfairness of misleading men in that way had been repeatedly pointed out by Militia officers.

And who is going in for a form of service which meets with no acknowledgment or appreciation whatever?

But it may be possible to re-constitute the *Militia*, provided that we revert to the essential principles of the Militia system, and make the Force a Militia in deed as well as in name.

And the reason why that is possible is, that Militia service is popular in so far as it is a custom and a tradition of the people of England, and in accordance with the fundamental principles of our Constitution. And when I say that Militia service is popular, I am not forgetting that there have been periods in our history during which the Militia itself has been intensely unpopular. There have also been times when the Regular Army has been unpopular. But these have been transient waves of dislike, due to abuse or misuse of the genuine system. The permanent opinion of Englishmen has been based on that political instinct which has enabled them in the long run to discern what is constitutional and what is non-constitutional. It must have been with full consciousness of that permanent opinion that the great statesman Burke spoke of the "true Constitutional Militia of the Kingdom" in the words which have already been quoted.

It was only twenty-three years ago that Lord Wolseley, a soldier

whose opinion in regard to military matters was worth more than that of any doctrinaire politicians, said that "The Militia is, after all, the mainstay of the British nation and the backbone of the British Army."

The object of this paper is nothing more or less than to recall, to illustrate and to explain that striking and decisive statement.

All that has been said in this paper can best be summarised in words used by the Duke of Bedford, the foremost champion of the Militia, in the House of Lords in 1907: "The Militia," he said, "is our oldest military organisation. The long continuity of its existence is a proof that it is a form of service congenial to the people of this country. Once destroyed, it can never be restored as a system. It affords a sure and solid foundation for the work of construction."

Those last two sentences are the gist of the conclusions to which this lecture has been directed.

The Militia, fortunately, has not yet been completely destroyed. It is, therefore, still possible to restore it as a system; and if this is done, it will afford a safe foundation on which to build the new organisation demanded by all our recent experience.

And now for the final question: "What is the best way of restoring the Militia?"

Here, again, the Duke of Bedford has pointed the way with crystal clarity. "The military authorities," he said, "can train a Militia force. They cannot call it into existence. A Militia Army can only be recruited by the nation. The principle of national recruiting is that the civilian authorities in the State accept the responsibility of finding officers and men, and of handing them over to the military authorities to train. The Militia has been deprived of that assistance to which it was formerly entitled from civilian authorities in the matter of recruiting. The result has been the deplorable and increasing failure to obtain officers and men."

The civilian authorities in question are the Lords-Lieutenant and their Deputies, who owe their very existence to the old Militia laws. The first thing to do, therefore, is to require those authorities to perform the duties of their offices, and to provide them with the necessary facilities. Those facilities must consist of such measures as will once more make Militia service attractive to officers and men. So far as the men are concerned, it is necessary to secure them against the odious liability of general drafting, and to treat them no less fairly than the Volunteers and Territorials have been treated. As regards the officers, two things are necessary. The first is that local feeling and social influence should be aroused and applied by local leaders—that is to say, by the Lords-Lieutenant and Deputy-Lieutenants, who owe their official rank to duties towards the Militia which have fallen into disuse. The second is that the Militia should once more be made a means by which officers can enter the Regular Army. The late Lord Raglan proposed that all Regular officers should pass through the Militia, and the scheme is by no means impracticable.

Among other things, it will also be necessary to remove the absurd

anomalies of the Special Reserve system, and restore to the Militia Commanding Officer the full powers of the commander of a unit. No less important will it be to re-establish some such link between the War Office and the Militia as the Militia Advisory Board, which was established in 1903 and incontinently abolished by the Army Council in the following year. Most of the troubles of the Militia were due to the lack of a friend at Headquarters, or of any man or body of men who were responsible for the welfare of the Force as a whole.

To those whom no argument can shake in their blind faith in the wisdom of our rulers, I have two points to offer in conclusion. They are plain statements of fact which are unassailable by any casuistry or rhetoric.

The first is this. The form of service offered by the Militia before the War and turned down as useless by Lord Haldane, is precisely the form of service now required for the Territorial Force, namely, foreign service on embodiment, with immunity from drafting. That is to say that, when the World-War was imminent, that form of service was rejected as useless which has now been adopted as essential for our second line.

Who was right and who was wrong?

If the Militia Officers were wrong at that time, the Army Council is wrong to-day. There is no way out of that.

The second point is this. Before the War, it was seriously proposed by the Army Council that the Militia should be absorbed into the Territorial Army, and it was only with the greatest difficulty that the Militia was saved from that insidious scheme for its destruction. Now, if that scheme had been adopted, it is obvious that the men of the Militia, or Special Reserve as it was then called, would not have been available for service overseas in 1914, and could not have been sent to the theatre of war unless they had individually volunteered to go. What would have happened then? Who was right and who was wrong? The supporters of the Militia, or those who wished to destroy the old Constitutional Force?<sup>1</sup>

#### DISCUSSION.

BRIGADIER-GENERAL C. E. MASSEY-LLOYD, C.B.E.: My Lord, Ladies and Gentlemen, as Chairman of the Militia Club I should like to tell you that my experience since the War has been that the War Office has kept a stony silence with regard to the Militia, with one small exception. About 21st December, 1920,

<sup>1</sup> The High Commissioner for Canada has kindly supplied the following information:—

"The Permanent Active Militia is practically up to strength of its peace establishment. The Non-Permanent Active Militia has been recruited up to 50 per cent. of its peace establishment. This force can be trained annually for thirty days, but since the War selected units only have trained for sixteen days, the remainder for a maximum of nine days. Reserve units have now been authorised for all the active units of the Non-Permanent Active Militia."

they launched a letter saying they had allotted one battalion to a regular Regiment, and they invited certain authorities in the county to recommend C.O.s and Seconds in Command. I believe those authorities went to the greatest pains and trouble to forward those names; they were sent to the War Office, but absolutely nothing has been done. That would not have cost the country one single penny, and it would probably have kept the Corps from that ceaseless stream of resignations we see in every issue of the *London Gazette*. There is one other thing in which they have not been doing absolutely nothing. The War Office appointed a Committee, presided over by the Duke of Northumberland, to go into certain questions connected with the reconstitution of the Militia. I got to hear of this and was instrumental in persuading the late Lord Raglan, our President at that time, to go and see about this Committee. Permission was granted and he went. The propositions before that Committee had nothing very vital to do with the Militia, and the Committee simply wasted his time. He remarked on leaving the room that the Duke of Northumberland was the only man he knew on the committee. Now, Lord Raglan was a man with wide experience, who knew several Militia Commanding Officers, and yet not one Militia Commanding officer that he knew was invited to that commission. I live in Suffolk and I go about the county a good deal. I am the President of the British Legion County Committee, so that I see and hear a good deal of the training of the Territorial regiments. The rougher elements of the town are now absolutely excluded from those Forces; and, so far as the country-side is concerned, the potential officers and men are also right out of the picture. I read a paragraph in the papers during last week which caused me great astonishment; I do not know whether it is the handwriting on the wall or not, but evidently the War Office must have sanctioned it. It was to the effect that the 3rd Battalion of the Essex Regiment had laid their colours to rest in Harwich church. The Vicar gave a splendid oration, saying what magnificent work the Regiment had done, but not one single word was said in the report about how those colours got to the Church, and there is not a single officer's name mentioned as being present at the service.

COLONEL SIR CHARLES YATE, BART., C.S.I., C.M.G., M.P. : I think we are all very much indebted to Lord Ampthill for the powerful Address he has given us to-day, an Address which I am sure you will all agree with me was also most eloquently delivered. One remark he made particularly struck me, and that was his comment on the unwisdom that was evinced by our Government in discarding conscription immediately after the War. I remember thinking the same, at the time. I remember I spoke on the subject in the House of Commons, and expressed my opinion that the proper thing for us to do was to carry on conscription, instead of demobilising everybody. I suggested that we should call up the men who had sought shelter in the mines, munitions and trades unions, who had not been to the War, give them ten weeks' training and send them out to take the place of the men who had joined the colours, who could then have been demobilised and brought home with proper order and regularity. That would have been very much better both for the Army and for the country. Afterwards the time came when the reconstitution of the Army was brought about as described by Lord Ampthill and I remember urging how much more important it was, as I thought, to reconstitute the Militia in the first instance, instead of giving priority to the Territorials. It seemed to me that immediately after the War there was no danger of invasion, but that what we required was an increased number of men who could be sent abroad without any fresh legislation, and if the Militia had been re-constituted and given priority over the Territorials, we should then have had



a Force available either for service overseas or for riots at home, which the Territorials are not eligible for, without special legislation. I do hope the proposals Lord Amptill has put before us will receive the consideration they deserve on the part of the Government. As Lord Amptill has pointed out, there are many men in this country to whom service in the Militia is suitable and to whom service in the Territorials is not suitable. There is no doubt about it that there is a large body of officers and men whom we could get in that way, and whom we have not got at the present time. I trust that the lecture we have heard to-day will be seriously considered, not only by the War Office, but by the whole Government, and that we shall see some efforts made to reconstitute the Militia at no distant date.

LIEUT.-COL. SIR ARTHUR LEETHAM, C.M.G. (Secretary and Curator) : Lord Selborne, Lord Amptill and Gentlemen : I think it would be very interesting for us to know what is being done in Canada with regard to the Militia. Before the War, I saw several regiments of Canadian Militia who were out for training, which was being done very much on the same lines as ours, although the length of such training was, I think, not so long. I should also very much like to know what the United States are doing with regard to their Militia. Their Militia is, I believe, called "The National Guard," but they are the old Militia of that country. I understand that many of these units in the United States were originally formed by the old Colonists, and possibly some of the original men had been in the Militia in this country; if that is so, I think we may almost say that they are offshoots of the British Militia. I am glad to tell you that a representative of the American Embassy is present at this meeting, and I hope he may be able to enlighten us upon what is happening in regard to the National Guard in America. If there is any Canadian officer present, I am sure the meeting would also like to hear what he has to say on the subject of the Canadian Militia.

CAPTAIN DOUGLAS HAMILTON GILLETTE (Assistant Military Attaché, American Embassy) : My Lords and Gentlemen, I think I can best explain to you the position of our Militia (which, as Sir Arthur Leetham has said, is called the National Guard) by reading a few paragraphs from our National Defence Act, published in 1920. This Act supersedes all previous military legislation and determines our whole policy with regard to the organization of our troops. It states, in the first place : "That the Army of the United States shall consist of the Regular Army, the National Guard while in the service of the United States, and the Organized Reserves, including the Officers' Reserve Corps and the Enlisted Reserve Corps." You will notice that it says, "while in the service of the United States." I will explain that by reading another paragraph, which states that : "When Congress shall have authorized the use of the armed land forces of the United States for any purpose requiring the use of troops in excess of those of the Regular Army, the President may, under such regulations, including such physical examination as he may prescribe, draft into the Military Service of the United States to serve therein for the period of the war or emergency, unless sooner discharged, any or all members of the National Guard and of the National Guard Reserve. All persons so drafted shall, from the date of their draft, stand discharged from the militia, and shall be subject to such laws and regulations for the government of the Army of the United States as may be applicable to members of the Army, whose permanent retention in the Military service is not contemplated by law, and shall be organized into units corresponding as far as practicable to those of the Regular Army or shall be otherwise assigned as the President may direct. The commissioned officers of such organizations shall be appointed from among the members thereof; officers of rank not above that of colonel to be appointed by the

President alone, and all other officers to be appointed by the President and with the advice and consent of the Senate. Officers and enlisted men while in the service of the United States under the terms of this section shall have the same pay and allowances as officers and enlisted men of the Regular Army of the same grades and same prior service. On the termination of the emergency all persons so drafted shall be discharged from the Army, shall resume their membership in the militia, and if the State so provide, shall continue to serve in the National Guard until the dates upon which their enlistments entered into prior to their draft would have expired if uninterrupted." That means that, in general, they could take the units of the National Guard and incorporate them into the Army direct, complete with officers and men. But it does not necessarily have to be done in that way.

ADMIRAL SIR REGINALD TUPPER : How is the National Guard constituted ?

CAPTAIN GILLETTE : Our country is divided into nine Corps areas, and each Corps area has a National Guard division incorporated therein. The National Guard units are local units raised by the different States, and they cannot be used outside the area of their own State except in cases of national emergency, as noted above. They are used during time of peace by the Governors of the States, for suppressing riots, insurrections, disorderly strikes, and the like.

ADMIRAL SIR REGINALD TUPPER : Are they on a voluntary basis ?

CAPTAIN GILLETTE : Yes, they are quite voluntary. Most of the units have been in existence for many years, but I will give you a picture of what happens if the Governor of a State wants to create a new regiment,—(the Militia Bureau having authorised same under the National Defence Act). The necessary *personnel* would be collected and organised into platoons, companies, etc., and the necessary buildings, drill grounds, etc., provided. The War Department would then be notified, and inspecting officers would be sent out to inspect the organisation. Should they approve (there being the requisite number of fit men and proper facilities), the organisation would be incorporated into the National Guard, and would then be supplied with uniforms, guns, etc., by the War Department. They are paid and equipped by the War Department, and not by the State authorities.

I will read another paragraph in which you will probably be interested : " All policies and regulations affecting the organisation, distribution and training of the National Guard and the organised Reserves, and all policies and regulations affecting the appointment, assignment, promotion and discharge of reserve officers, shall be prepared by committees of appropriate branches or divisions of the War Department General Staff, to which shall be added an equal number of reserve officers, including reserve officers who hold or who have held commissions in the National Guard, and whose names are borne on lists of officers suitable for such duty, submitted by the Governors of the several States and Territories." In other words, half of the members of each committee, which decides on the plans and policies in regard to the National Guard, are non-regular officers.

I might further add that it is laid down in the Act that the Chief of the Militia Bureau in our War Department must be a man who has had at least ten years' commissioned service in the National Guard.

MAJOR E. L. GEERE : I have lately, and, in fact, for some years past, been commanding native regiments in different parts of the East, including Aden and Iraq. Those native regiments are very often, and still now are, officered partly by Special Reserve or Militia Officers. I completed the training of the Yemen Infantry at Aden, and commanded it from 1919 to 1920. Lately I re-organised



and trained to a high standard of efficiency the 3rd Battalion of the Iraq Levees and commanded it until a few months ago. I am not a public speaker, but I would like to emphasise what a lot the country loses by not giving some facilities for the education of Militia or Special Reserve officers. When officers are wanted by the Colonial Office, regular officers, if they are available, are as a rule seconded. But in certain cases, even now, there are numbers of Special Reserve and Militia officers who, owing to their peculiar qualifications, are more valuable for those posts than regular officers. I refer particularly to their knowledge of the country, the work they have done in different parts of the world, and their knowledge of the languages. Some of those officers have to instruct and lecture natives on musketry, gymnastics and other military accomplishments. They have very few non-commissioned officers and native officers to help them, and they have no opportunity whatever of keeping themselves up-to-date. The consequence is that some of us have found it difficult at times to keep a new native regiment right up to the mark and as efficient as it ought to be, because we have not had the opportunities of learning the latest things. In 1920-21 one or two officers, including myself, desired, not with the idea of getting appointments, because we already had them, to go to the Hythe School of Musketry to learn the latest things that are taught in regard to small arms. But there was no opportunity of going into the School; the School was full up. I cannot remember the exact words, but I was informed through the proper channels that Territorial officers filled the School; also that there were no funds for the payment of officers going through those classes from the Special Reserve or the Militia. It is very difficult, in these days, to do everything at your own expense. Mind you, these officers were actually going back to countries where they were likely to form and perhaps command new units. I think in that way this country is losing a great deal. The few remaining officers in different battalions are getting very fed-up. Nothing can be done for them and they are contemplating resigning, which means that if ever the Militia is reconstituted, it will be rather a difficult thing to get a complete set of new officers and new men. I do not know how it can be pointed out, but I wish it could be pointed out that it is to the interests of the country to include certain facilities to the few remaining officers who are in the Special Reserve and the Militia, enabling them to go to the schools of military instruction as they used to do, and be paid for the work they do there. As I said before, I am not a speaker, and I do not intend to detain you for long, but I have had nearly twenty years' service in the East. I am a Militia officer and I have been soldiering almost continuously during the whole of that time. That is all I have to say, except that I do consider the Government at the present time is losing a lot by not letting officers go through the schools of instruction and be paid for their work as they used to be, and as they were entitled to be under War Office regulations. Some of these officers are still being used to do very important work, and certainly some of them are being used because they are more efficient at their special job than any regular officer that can be found. I am afraid that some of the officers present may want to argue with me and get very angry at some of my remarks, but I am prepared to stick to my guns, because I can prove the truth of what I am talking about.

THE CHAIRMAN (The Rt. Hon. The Earl of Selborne): Is there any Canadian officer present at the meeting? If there is, we should be very glad to hear his views and experience on this subject.

If there is no Canadian officer present, it only remains for me to say that I think we are very indebted to Lord Ampthill for bringing this subject, so important, to us at any rate, before the notice of the Royal United Service

Institution, and we hope also before the notice of the Army Council. I think you will all agree that he has dealt with it with a complete knowledge of the subject, and that he has altogether covered the ground.

We are also greatly indebted to Captain Douglas Hamilton Gillette, of the United States Army, for the very interesting account he has given of the constitution and functions of the American Militia. Lord Ampthill asked the question whether it was too late to revive the Militia. It is quite true that we are every day losing more and more of the continuity of tradition, which is of such great importance, but I would remind him and those present that this is not the first time that the Militia has gone into abeyance after a great war. I think I am right in saying that the Militia went into quite as great an abeyance as it is in to-day after Waterloo, and that if you will consult an Army List somewhere about the time of the great Reform Bill, you will find in it probably the names of a Commanding officer, an Adjutant and a Quartermaster, and that was the whole cadre of the Militia at that time. My recollection is that it was reconstituted not very long before the Crimean war, and, although I speak with less confidence, I think its history had been something of the same kind at the beginning of the Eighteenth Century, after the wars of Marlborough. Therefore the Militia has certainly been reconstituted once, if not twice, after a long period of abeyance, and I am quite confident that it is not too late to reconstruct the Militia to-day. Then Lord Ampthill said: "We shall be told, 'Why not wait in complete confidence on the Government because we all know—(and I think he was then quoting the prevalent opinion)—that the Militia is going to be reconstituted?'" I do not think we know anything of the kind. That was the definite policy and the definite announcement of the Government, as Lord Ampthill has shown us by quotations from Lord Gorell, when he was Under Secretary of State for War, eighteen months ago. But the statements of Lord Derby to-day are by no means as clear or as reassuring. I have tried to inform myself as to what the position is, and I think if you had the Army Council here and asked them, they would say that there is no decision at present binding on them that the Militia shall be reconstituted at all. I think they would tell you that, owing to the extraordinary necessity for economy, they have been with great reluctance compelled to abandon the reconstitution of the Militia; that they have left the cadres in being in the Army List, in the hope that some day the money may be forthcoming for its reconstitution, but that they could not possibly give any pledge that that was now part of the military policy of the nation. I may be under a misapprehension, but I do not think so, and I think it is very important that we ought to know what the real position is, in order that we may, so far as we can, influence public opinion and the Army Council to a more definite and a more favourable decision.

Lord Ampthill put before you, very modestly, but with perfect fullness and accuracy, the extraordinary services that the Militia performed in the late War, as in all previous great wars. He reminded you that the Militia was definitely responsible for the training of men by the million, and of officers by the tens of thousands, and it is only too true, as he said, that these transcendent services have received singularly little acknowledgment from those in authority. He laid stress on the fact—(and as a Militia officer of forty years' standing, I entirely agree with him)—that there are classes of men in England, and I believe also in Scotland and Wales, but certainly in England, who are very fit for officers and for non-commissioned officers, and men whom the Militia service suits much better than Territorial service, and that these classes are now being lost to the military service of the country. I would also respectfully remind the Army Council that, not only did they get many very excellent officers through the Militia, but that up to

the very commencement of the war, they got a great many very valuable men for the Regular Army through the Militia. Therefore not only are they losing the military service for the nation in the shape of the Militia, but they are also losing many excellent recruits for the Army, and that is a matter which will naturally carry great weight with them. Then I come to a question which I think we have to face and on which I do not entirely agree with Lord Amphil's point of view, and that is the question of units and drafts. I quite agree with him that it was very wrong and unjust of Lord Haldane to try to lay down that the Militia battalions were not to go to the front as units, and I quite agree with him that many more Militia battalions might, with great advantage to the Army, have been used as units in the late War. I would always join with him in resisting to the utmost of my power, any re-constitution of the Militia that prohibited the use of the Militia as units, in any future emergency. But I think we should make a great mistake if we did not also look at this matter from the point of view of the Army Council and of the General Staff. To them, the matter of most transcendent importance is the supply of drafts to the regular battalions of the county regiments, in a great war, and it is no wonder that they should look to the Militia, to the 3rd and 4th battalions of the regiments, as a most valuable supplement to the first class Army Reserve for supplying drafts to the first or second battalions of the county regiments. But that, to my mind, is a wholly different thing from general drafting. General drafting, I quite agree, is a most odious permanent obligation, though we must all admit that in the crisis of a great war, the Commander-in-Chief must be free to use his men, be they Militia, Territorials or Regulars, exactly as they are most required at the moment. But as a permanent obligation, I quite agree with Lord Amphil that promiscuous general drafting ought not to be imposed upon the Militia. I do maintain, however, that drafts for the regular battalions of the county regiments is a very proper function for the Militia to perform, and it is a function which they have performed throughout the whole of their history. The great service rendered by the Militia in the Peninsular and at Waterloo consisted of drafts to the regiments. There was not then the very intimate connection that there is now in the case of my own county, between the regular battalions and the Militia battalion. I say without hesitation that our county regiment is so real a thing that when the Militiamen went from the third battalion to the first and second battalions they felt they were going home, and they had no idea that they were going to a strange regiment. Therefore, I think we should make a very great mistake if, while contending, as I am prepared to contend, for the right of the Militia to be sent as units, we did anything to make the Army Authorities feel that the great service we can render to the organisation of the Regular Army by acting as drafts for the regular battalions of our county regiments, was uncongenial to us. It is very important, allow me to say, that we should admit that, because that is where we are going to get the sympathy of the Army Council and of the General Staff. At the present moment I have not the least doubt that the shortness of reserves for the infantry battalions of the Regular Army must be a matter of the gravest anxiety to the General Staff. If we want them to join us in resuscitating the Militia, we must get them to understand that we are willing to act as drafts for the regular battalions of our county regiments, and I am quite sure if that is thoroughly understood, by the General Staff, they will be as keen as possible to get the money in order to reconstitute the Militia. I feel that so strongly as a matter of military policy that I apologise for dwelling on it at some length.

But there is another pressing aspect of this question which I have been very much surprised the Government and the Army Council have not had in mind,

and that is the value of the re-construction and resuscitation of the Militia from the point of view of unemployment. If the Militia were resuscitated to-morrow and the men were taken on for winter training in the depôts or the hutments that still exist, I have very little doubt that a large recruitment of the Militia would take place. That would be a great contribution to the solution of the problem of unemployment, because surely it is far better to pay money in adding to the military strength of the nation than in the form of a dole. I am very surprised that that point of view has escaped the notice of the Army Council. I should have thought they would have put in a plea for a large portion of this unemployment grant for the special purpose of re-constituting the Militia, knowing that in doing so they would be both helping to solve the problem of unemployment, and supplying the Army with what they need more than anything else at the present moment, and that is a reserve in time of war.

Then I should like to express my complete concurrence with Lord Amptill in what he said as to the necessity of an Advisory Militia Board in the War Office when the Militia is re-constituted. I would like in that connection to draw particular attention to what we were told by Captain Hamilton Gillette, namely, that in the War Office of the United States, provision is expressly made for the representation in the Bureau which is charged with the administration of the Militia, of a large proportion of Militia officers. I verily believe with Lord Amptill that the extraordinary want of touch that there was for so many years between the Militia and the War Office (I say this quite respectfully, but with a real knowledge of the facts) and the ignorance on the part of the officers at the War Office of the Militia Force as a force, was almost entirely due to the absence of any such *liaison* officers drawn from the Militia.

Then I have great sympathy with what Major Geere said about the want of the opportunity of education for Militia officers. That is a very old story. It is more than 30 years ago since I tried to go to a certain military school and was told there was no pay, and when I said I would go at my own expense, I was told there was no room. That is only a specimen of the kind of treatment that Militia officers received 25 and 30 years ago, and then some people wondered that the Militia officer was not a thoroughly trained professional soldier.

Once more, in conclusion, I would like to express our very great thanks to Lord Amptill for bringing this matter forward. For years he has been a devoted and enthusiastic, and, you will not doubt, a most competent Militia officer, and he is to-day one of the stalwart champions of our plea for recognition as the constitutional force, and for our re-construction as part of the defence of the Empire.

ADMIRAL SIR REGINALD TUPPER, G.B.E., K.C.B., C.V.O.: Ladies and Gentlemen,—I rise to propose that we accord a hearty vote of thanks to the Earl of Selborne for so kindly taking the Chair to-day and presiding over Lord Amptill's most excellent lecture. I also think we should thank his Lordship for the very valuable remarks which he has made supplementing Lord Amptill's paper. We all hope that this very valuable paper and the discussion that has ensued will have its due effect, and that by the re-constitution of the Militia we shall have another large body of Officers and men well trained for safeguarding the Empire.

The resolution of thanks was carried with acclamation, and the meeting terminated.

## MONITORS IN MODERN NAVAL WARFARE.

By CAPTAIN E. ALTHAM, C.B., R.N.

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On Wednesday, 14th November, 1923, at 3 p.m.

VICE-ADMIRAL SIR ROGER J. B. KEYES, BART., K.C.B., K.C.V.O.,  
C.M.G., D.S.O. (Deputy Chief of the Naval Staff) in the Chair.

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THE CHAIRMAN: Ladies and Gentlemen, I desire to introduce to you Captain Altham, who is going to lecture to us on a subject upon which he is very well qualified to speak. He commanded one of the earliest monitors and fought her in many engagements on the Belgian coast. He also introduced technical improvements in the fire control, which contributed very greatly to the success of the monitors on the Belgian coast during the last year of the War, as they enabled the monitors to fire accurately with great effect at night at unseen targets.

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### LECTURE.

SIR ROGER KEYES, Ladies and Gentlemen,—I have called my lecture "Monitors in Modern Naval Warfare," and I propose to illustrate what I have to say mainly from our experience in monitors on the Belgian coast during the late War, but my object is to show that the Monitor, as a coast attack ship, fulfils a definite and important rôle in our fleet.

We are so prone to think of the functions of the Navy in terms of high sea warfare—the duels of great battle fleets, dashing cruiser and destroyer actions and the protection of shipping—that the age-long calls on the Navy to assist military operations on an enemy's coast are wont to be forgotten in the piping times of peace.

It is a startling fact that in the greatest war the world has ever seen, the British Navy fired infinitely more ammunition in coastal operations than in high sea warfare.

The effect of this coastal warfare was to revive a type of vessel which, in its modern form, we can trace back to the first "Monitor."

Perhaps credit for the idea of such a ship should be given to Captain Cowper Coles who, in 1855, mounted a 32-pounder on a raft, during the Crimean War, and who evolved the system of training a gun on a turntable with a winch, instead of jerking the carriage round with tackles and handspikes.



*The First "Monitor."*—However this may be, Ericsson designed his famous "Monitor" in 1861 with a pair of 11-inch guns in a turret, and embodied in her the forerunner of two distinct types of modern warships—the coast attack ship, and the turret ship, which has become the battleship and battle cruiser of to-day. Two prophetic communications from him, explaining the origin of the name "Monitor," are of interest. Writing to the Assistant Secretary of the Navy on the functions of this novel vessel, Ericsson says: "The impregnable and aggressive character of this structure will *admonish* the leaders of the Southern Rebellion that the batteries of their rivers will no longer present barriers to the entrance of the Union Forces. The ironclad intruder will thus prove a severe *monitor* to those leaders." Here we have the clear conception of the coast attack vessel. Twenty-four years previously, Ericsson failed to make good his claim against the British Admiralty to have been the originator of a screw propeller. Possibly this rankled, anyway we find him writing to suggest that this latest "Yankee notion" may prove a monitor to the Admiralty in their policy of building broadside ironclads. Certainly his design materially affected the introduction of turret ships.

*The Coast Attack Ship* as a unit of the British Fleet is, however, to be found in earlier form, in the bomb ketches introduced in the 17th century, and which afterwards increased in size to bomb vessels or, as they were known, "bombs." These vessels were assigned clearly defined rôles, by naval forces engaged in the frequent coastal operations of those days. The Navy was well used to this form of warfare and our wise old forefathers equipped the fleet accordingly.

*Monitor Type Ironclads.*—At a much later period we find a latent idea of the coast-attack ship in the old coast defence ships of the "Cyclops" class, whose draught had been reduced to 15 feet from the 22 feet of their predecessors, with some idea that they might be used for attack within easy reach of our shores.

The whole issue had become confused, however, and the notion of defending our coast with isolated ironclads was so palpably unsound that the ardent "blue water" school swept them away, and it was not until the late war that we were faced again with the problem of this form of naval warfare.

*Early Coastal Warfare in 1914.*—The early months of the late war saw the beginning of the Navy's work on the enemy's coast. The German avalanche swept down upon Belgium; the rush for the Coastal Ports began. "Calais!" was the battle cry of the right flank of the German Army. The Belgian forces falling back towards the coast, turned their eyes to England and looked seawards for help in their dire adversity. It came in the nick of time.

Our dockyards and graveyard anchorages were ransacked for "expendible" vessels. A flotilla, which the Germans scoffingly proclaimed would disgrace a sixth rate naval Power, arrived off the coast and enabled the Belgians to make a stand on the line of the Nieuport Canal. That flotilla contained ships like the ancient gunboat "Excellent,"

launched in 1883, and the "Bustard" of 1871, both monitors in embryo form; the old sloops "Vestal," "Rinaldo," and "Wildfire" (which I had the honour to command), and two old cruisers. Even before these could be put into fighting trim, three monitors building in this country for Brazil had been taken up and commissioned as the "Mersey," "Severn" and "Humber," and, with a few old destroyers, were already battling with the enemy when we, in H.M.S. "Wildfire," arrived off the coast on Trafalgar day, 1914.

This little force continued for weeks to harass the German advance, repeatedly bombarding at point blank range and heartening the sorely pressed Belgians to cling on to the line of the Nieuporte Canal. It was very largely due to the ships that that line was never crossed and Dunkirk and Calais were saved.

The experience of these early operations brought into prominence at once the importance of having ships suitable for coast attack work. By December, the old battleship "Redoubtable" (originally the "Revenge") had been added to the command; other old battleships had made fleeting appearances on the coast, but the waters were too shallow for ships of that class and it soon became apparent that they were not suitable for work of this nature.

The 1914 Belgian coast operations also renewed and confirmed long-standing principles governing the use of ships against an enemy ashore. I cannot do better than quote from a letter which the late Rear Admiral Sir Horace Hood wrote to me in December of that year. He said: "If a real, serious advance commences with the idea of pushing back the enemy and making him move back his guns and of pressing home to Ostend, I am quite sure that the fleet can co-operate and be of real assistance. It is now 8 or 9 weeks since the bombarding commenced and during that period our ships have bombarded for 4 or 5 weeks. It is quite a mistake to think that *ships' guns* can knock out *shore guns*; they cannot do so, it is an *axiom*. What the ships' guns can do is to cover an area, create a diversion, cause damage to masses of men (he meant men in massed formation in the open, such as we had to deal with in the first stages of the enemy's advance), and possibly temporarily silence the guns; if, therefore, the army advance in force and advance their big guns, it is probable the enemy guns will be captured or else obliged to retire, which at once eases up the strain on the ships and enables them to do good work. I am doing all that I can to prevent the Admiralty from allowing any more bombarding unless it is really intended to push to Ostend; then we must manage to keep up a real hot fire. It is quite all right *if* we are doing good; but we do not do any good against invisible guns on shore."

The continued presence of the ships on the Belgian coast had a very marked effect on the situation, however, without sustaining continual bombardment. They constituted a perpetual menace to the German right flank and forced him to create the greatest chain of batteries and coast defences the world has ever seen, to guard against a landing in its rear.

I had the interesting experience of presiding over the combined



committee charged with making the official record of those defences directly after the Armistice, and hope to show you later some photographic slides of typical batteries and positions.

In contrast to this, on the Allied side there was little more than barbed wire defences at likely landing places. The shore artillery was almost entirely devoted to the support of the line, and from Nieuporte to Dunkirk there were no heavy batteries firing seawards, except the local defences of the latter place. The French were content to rely almost entirely on the ships, to defend their left flank, and this situation endured throughout the war.

*Modern Monitors.*—Ericsson's "Monitor" was commenced in October, 1861, and fought her famous duel with the "Merrimac" only five months later. Even Lord Fisher couldn't better this example of hustle, when he initiated the construction of the fleet of monitors in the late War.

These new monitors were divided into two main classes—the small monitors with armaments varying from a single old 9·2, down to one of a couple of modern 6-inch; and the larger monitors each with a pair of 12, 14 or 15-inch guns.

The small monitors were sturdy little vessels, and proved most useful in such diverse theatres of war as the Belgian coast, the Eastern Mediterranean, home waters and North Russia. Intermediate to these two classes were the three "Humber" class I have already alluded to. These useful ships, having served their purpose well on the Belgian coast, went out East. "Severn" and "Mersey" were chiefly responsible for the destruction of the "Königsberg" in the Rufgi River. "Humber" in due course joined my command in North Russia and was the most powerful vessel we had in the Dwina River Operations in 1919.

*The Large Monitors*, rather appropriately, considering their close association with the above, were nearly all called after famous Generals. For instance, my own ship was H.M.S. "General Craufurd;" then there were the "Lord Clive," "General Wolfe," "Sir John Moore," "Prince Eugene" and suchlike names. The two earliest 15-inch monitors were called after distinguished French Commanders, the "Marshal Ney" and "Marshal Soult;" but the two latest ships were given the more conventional names of "Terror" and "Erebus." There seems very little doubt that this fleet of monitors, built for the most part in 1915, was intended by Lord Fisher for his great landing project in the Baltic; but before that could be seriously thought of (putting aside the question of its practicability), urgent claims were beginning to arise in existing theatres of war.

Our original scratch pack on the Belgian coast were long since outranged by heavy batteries growing up apace on the enemy's seafront, and the value of the ships in support of the Allied left flank was becoming steadily less. The Dardanelles operations had taken toll of several old battleships and, with the increasing danger of submarines, H.M.S. "Queen Elizabeth" had to be withdrawn. To replace these ships, all four of the

14-inch and two of the 12-inch large monitors and a number of small ones, were sent out to those waters.

*Belgian Coast Monitor Work.*—The 12-inch monitors began to arrive on the Belgian coast in the summer of 1915, and from then onwards large monitors became firmly established units of the Dover Command, as it was called. For the most part they were based on Dunkirk, and worked from that port up the coast, but their duties were manifold, and a brief description of some of the most important ones will show you that we in the Monitor Squadron, at least, did not have a dull war. Firstly, they were the miniature battle squadron of the Dover Command. Behind us all, so to speak, was the shielding wing of the Grand Fleet, covering the main German naval forces; but, locally, the monitor squadron, or even a single monitor, acted as the covering force for the lighter craft.

For instance, on our daily patrols, when we trailed our coat in front of Ostend and Zeebrugge, a single big monitor would very often support a little force of one or two small monitors, four destroyers and two pairs of minesweepers. Sometimes, trawlers would come out as well, and work industriously repairing mined nets almost within range of the enemy's batteries; while the mother monitor, with her brood of small craft, patrolled up and down until the work was done. Enemy destroyers often appeared, but were very chary of getting within range of the monitors' big guns, always making off at once if they came under fire.

*Bombardments.*—The monitor's own special work, of course, was bombarding, and this, in conjunction with intensified bombing, eventually forced the enemy to abandon to a great extent the use of Zeebrugge and Ostend as ports, and even made his vessels and submarines take refuge as far up the canal as Bruges.

We have already noted how the continual threat of these bombardments, and the presence of British Naval forces on his left wing, compelled the enemy to construct huge defences and to keep a considerable force always locked up on the coast—a continual drain on his resources.

I needn't go into technical details of bombarding, but it will show you to what a high pitch this form of naval gunnery was developed if I tell you that in the latter stages, under Sir Roger Keyes's command, the monitors could fix their position out of sight of the coast by wireless, and fire at night in a smoke screen or when the visibility was too poor to see the shore, without any external point of aim. The first time that the latter was done was during the Zeebrugge operations. Aerial observation of fire, which was so vital to bombardment at long range, is such an important subject that it deserves a word to itself.

*Naval Observation of Fire on Shore Targets.*—After our early experience in 1914 of bombarding shore targets invisible from the ships, I was sent to Belgium to organise the system of observation of fire for future bombardments.

We did what we could with the primitive means at our disposal, but any system dependent on a fixed station is only efficient over a very limited distance from those stations, and the difficulties of distinguishing

between the individual shots of a particular ship and the mass of other firing, and of signalling off results quickly and accurately, were immense.

It was at once apparent that some other system of observing fire was essential, particularly for bombarding further along the coast. The normal means of correcting fall of shot by direct observations from aloft in the firing ship, was useless where the targets were hidden behind sand-dunes. There remained observations from the air. It was my good fortune to be associated with the investigation of this problem from its earliest stages. We started experiments with the old "Redoubtable" in the Thames estuary, and these were followed by the inauguration of a primitive school for the first Naval Observers at Calshot, at the entrance to Southampton Water. Early in 1915, observation of fire from the air was being attempted in the Dardanelles. On the Belgian coast, unfortunately, a quite useless and impracticable system of observation from platforms poised on huge tripods dropped into the sea in the shallow water off the enemy's coast, was persisted in for long, and it was not till experiments carried out by H.M.S. "General Craufurd" and a seaplane carrier had conclusively proved the value of aerial spotting, that this superseded all other methods.

The one outstanding feature, once the material and organisation had been made efficient, was the vital necessity of having a flying and observing *personnel* completely familiar with the ships and their work. It was the fact that we could get hold of the Observers and show them how their signals were used, what our difficulties and requirements were and that we were also enabled to understand their troubles and capabilities, which enabled us to make a success of the system. At Dunkirk the monitors and aerodrome were within easy hail of each other; also there was the R.N.A.S. element, and a nucleus of R.N. officers in the local air forces even after they became the Royal Air Force.

Three years' experience of bombarding on the Belgian coast, and two further years afterwards in North Russia, commanding a flotilla of monitors and seaplanes, have all impressed on me the vital need for the Navy's air services to be performed by Naval Officers, brought up in the Navy under Naval discipline and command, and trained by the Navy in what are essentially Naval functions. There can be no compromise. Any other system is incongruous and, in war, spells inefficiency, which may lead to disaster. I am speaking now on a subject with which I have been intimately associated throughout five years of war. After this digression I have only time to touch lightly on the many other rôles filled by the large monitors.

*Anti-aircraft Work.*—At one time we were stationed in the approaches to the Thames, in the hope of bagging a Zeppelin flying low on its way to bomb London. This we never did, but our 12-inch high explosive shell and anti-aircraft guns were sufficiently effective to make German aircraft exceedingly chary of coming too close to the larger monitors.

The big H.E. shell produced what (to use an Irishism) may be described as an "aerial earthquake," the effect of which was to shake

severely the equilibrium and nerves of any pilot within the effective zone, even if his aeroplane was not actually hit. I would commend the "aerial earthquake" idea to those responsible for our anti-aircraft defences.

*The Great Landing Scheme.*—In the summer of 1917, the six 12-inch monitors were interned in a desolate spot at the mouth of the Thames to prepare for a great landing on the flank of the German Army. A novel scheme for landing the troops was to have been adopted. A pair of monitors, lashed together, pushed ahead of them a huge shallow draught pontoon.

This was to have been forced up the beach, and by this means three teams of monitors would discharge three brigades, which had also been interned and specially drilled in climbing a reproduction of the sea-wall.

The scheme, whatever its practicability in other respects, had the merit of being the first serious attempt to solve the problem of landing tanks from ships at the head of the storming party. This is a feature of combined operations under modern conditions which needs the serious attention of the Navy. In this case, three tanks were to be carried at the head of each pontoon and, provided the latter succeeded in getting into sufficiently shallow water, the tanks would have taken the first shock of the assault. Our experience showed that this pontoon system of landing an army is only suitable for a short voyage in calm water and with a fairly regular shelving sandy beach, like the Belgian coast.

The impression one got, after a detailed examination of the defences after the Armistice was, that if we had had luck and if there had been good staff work, the attack might have succeeded against the flank of an enemy already about to retreat as the result of a grand advance by our armies further inland. As a frontal attack and under the conditions which obtained at the time, it would probably have led to disaster, even had we got the army ashore.

*Landing 12-inch Guns.*—During a blank period, when the 12-inch monitors were not being used for bombarding, we in H.M.S. "General Craufurd" had the interesting job of landing seven 12-inch guns by hand.

[The slides I am going to show you will explain the process we adopted.]

*Monitors at Zeebrugge.*—The whole story of the Zeebrugge-Ostend operations is too well known to be repeated here, and the large monitors could only take a modest share in the operations, but the bombardment which covered the approach of the gallant "Vindictive" and block ships was, I venture to say, one of the essential features in a network of organisation woven with a consummate skill, which ensured success to bold conception, high endeavour, and great leadership.

[The lecturer then showed and described photographic slides of the various classes of monitors and other vessels engaged in coast attack work, their duties and uses, followed by views of the German defences of the Belgian coast and the effects of the Zeebrugge operations.]

The lecturer then continued :—

*The Lesson of the Monitors.*—These are but outlines of the variegated duties of the monitors, but I hope I have said enough to show the very active part they played in what I may term the " front line trenches " of the Navy.

Their amazing immunity from casualties was essentially due to the suitability of the ships for their work. The heavy losses to the old battleships employed for coast attack have already been alluded to. The large monitors, in company with the old " Redoubtable " and old cruisers, were the first ships to be fitted with the bulge.

Not one of these vessels was sunk by a torpedo. The " Terror " was hit by three torpedoes in quick succession, all in the fore part. She made her way to Portsmouth, and was repaired and back on her station in a few weeks.

" Erebus " was hit amidships by an explosive motor-boat with a large charge. She steamed to Portsmouth at 12 knots and was back on the Belgian coast in a fortnight. I would commend these two simple statements of fact to those who are repeatedly proclaiming that the day of the surface ship is doomed.

*In conclusion*, I venture to urge the importance of keeping the Monitor type alive in the fleet. We cannot afford to maintain a great squadron of monitors such as we had on the Belgian coast, but the late War showed conclusively the danger of using battleships for coast attack work, and the necessity for suitable vessels for this class of warfare. In those days, as Mr. Winston Churchill emphasises in his new book, we had a lot of old battleships—expensible, as far as the Main Fleet was concerned. Now we have *none*. If some second or third rate Power has to be engaged by a landing, or by coastal operations, we should have to risk deep sea vessels, vital units of our perilously reduced Main Fleet, to perform monitor duties. It seems to be sound insurance against such disaster, and therefore true economy, to maintain a small force of coast attack vessels in readiness for such a situation, as was done by our forefathers with their live appreciation of the needs of such warfare. We may not have to fight another Trafalgar or another Jutland for a century, but it is just these side shows which the Navy is repeatedly being called upon to meet, and we cannot afford to risk our main forces on them, for fear the big issue should find us at a disadvantage.

The Washington Conference does not limit us in the matter of vessels of 10,000 tons and less, carrying guns not greater than 8-inch. This gives ample scope for the design of a new type of coast attack vessel. Some of us in the late war learnt a great deal about what such ships could and could not do, what were the requirements of this class of warfare, and how far the large monitors fulfilled these requirements; but I think we should not be above consulting the Army before designing any more. They can teach us a lot about indirect firing and the attack of shore targets, just as, I believe, we can help them in their new problems of attacking rapidly moving and armoured targets in the shape of tanks.



*Finally*, I suggest that one or more of these *coast attack* (not defence) vessels, as they really are, should be used for systematic training in all those amphibious duties which the Navy is continually being called upon to perform, but which it is so difficult to combine with the exercises and practices of the Main Fleets. In addition, these vessels could be used with advantage as connecting links in combined training, which we talk about so much, but which it is so difficult to carry out in practice. With them it would be possible to investigate in practical form those many new problems in co-operation which new methods of warfare by land, sea and air have introduced.

It is as well to keep in mind the fact that it was the type of vessel known as the Monitor which, in the most recent Naval warfare, still enabled us to carry on, even if in modified form, the old national tradition that "England's frontiers are every hostile shore."

#### DISCUSSION.

MAJOR-GENERAL SIR GEORGE ASTON: My Lords, Ladies and Gentlemen, I should like to open my remarks by congratulating the lecturer on the extraordinary interest of his lecture on a subject to which I have devoted 30 or more years' study, especially from the point of view of the importance of history to men of action. I am very grateful to him for having mentioned some points in connection with the early days of the War. I listened last week to a very interesting speech by Lord Curzon on this question. His Lordship then pointed out to historians that there were certain secrets locked up in the Foreign Office connected with occurrences during the last 30 years that would never be disclosed to any Institute such as the important Institute he was then addressing—the Institute of International Affairs—except possibly by ex-Cabinet Ministers, or possibly by indiscreet Generals or Colonels. I stand before you as an indiscreet cross between a General and a Colonel. I recall very vividly the early days of the War in August 1914, and I think that I can bridge the gap between the date that the lecturer mentioned and the opening of the War. I had been studying and teaching the subject of combined operations. I heard the expression "amphibious war" used just now, an expression which I claim to have used for the first time in this Institution in 1907. Problems of extreme interest were then arising; I was teaching at the Staff College; and one of the principles upon which I was laying emphasis was that ships cannot hit anything that they cannot see. I taught, as an example of the extraordinary advantage of the use of ships' gun-fire against a *visible* target, the case of the capture of Valparaíso in 1891, when the ships could see the enemy's mobile army reserve. They shelled the reserves, which were visible on the hillside, and gave them such a battering, that they won the battle. The other case to which I then referred was when the Japanese used gunfire with conspicuous success against the Russian positions in the battle of Nan-Shan. There, you will remember that what happened was that the Japanese ships shelled the Russian position very violently. The Russians evacuated the position, but they went back again into it and were ready to receive the Japanese attack when it came. I desire to emphasise the extreme importance of accuracy in gunfire from the sea. The lecturer to-day has been very modest, and I congratulate him upon the modesty of his claim. His claim was that they can bombard an area but not a small target. I will give you a certain personal experience

in that connection, which may prove to be of some interest, because it may be valuable to historians.

One of the differences between land gunnery and sea gunnery is that in the former you have a steady platform, but so far as sea gunnery is concerned, I should like some additional information about the exact means of improving the elevation. That is the most important point, to which great attention ought to be paid—how definitely the exact elevation is given. Those were my views at the time, right or wrong, and I impressed them very strongly on the Admiral. I saw him a few hours afterwards, and he said: "You got me into most awful trouble. The Admiralty asked me 'What is the exact range of the enemy? What is the highest elevation you can get on your guns?' and all sorts of technical questions. The last question was: 'Tell us definitely why you do not propose to co-operate with the General by means of gunfire?'" He sent back the answer: "Because the General does not want it"; and he did not answer another signal. The main point that I want to impress upon you is the tremendous importance of the lecturer's statement that apparently we have scrapped all our past experience. I was terrified by what the lecturer said, because, as far as I can make out, we have scrapped all our knowledge and experience. Unless people like myself will be indiscreet—I am retired, so that I am all right—I do not know what will happen. I am now engaged on historical research, and I shall be extremely grateful for any letters of historical importance which I can collect for the sake of future historians. You can be as indiscreet as you like in writing to me; the letters will not get to the public, but only, in course of time, to competent historians. I have quoted to you my personal experience. What I want to rub in is the enormous importance of the study by the Navy of the extremely technical problem (which requires experiments) of exact co-operation when dealing with a moving object, like an army on land, that you cannot see at sea. If the ships could have seen the enemy, things would have been different. The news I had at Ostend was that the enemy were coming at daybreak. I did not know the exact way the enemy would come, and the only possible plan was to attack the head of his advance guard, and how could I tell where the advance guard, or our ships, would be? I infinitely preferred not incurring the extra risk of having shells from the sea coming among my own men. What I want to impress upon you is the enormous importance of experiments being made by the Navy with a view to co-operation with the Army in firing at an invisible object on shore. If only the Navy give the necessary time and thought to the subject there is not the slightest doubt that they will solve the problem. I congratulate the lecturer on his modesty to-day, and for the extraordinarily interesting lecture he has given us.

CAPTAIN ALTHAM: I was not quite clear what the question was that you asked me.

SIR GEORGE ASTON: What I meant was this, that with the land gun you can have quadrant elevation, applied by spirit-level. What form of elevation equally accurate can be applied at sea?

CAPTAIN ALTHAM: Sir George Aston's question is rather a technical one. First of all, as regards the elevation, it is interesting to recall that these old turrets, when they came along to the monitors, had only the elevation which was given to them when they were in ships for high-sea fighting, and, before they were brought into use by us, the guns were put up to  $30^{\circ}$  as against  $13\frac{1}{2}^{\circ}$ . At first many of the mountings broke down in consequence. Throughout the



whole of the three years I was in H.M.S. "General Craufurd" we had to pin one of our guns out with a half-inch steel pin, and every time the gun fired it sheered the pin. Otherwise it would have slipped back. For every projectile we were supplied with, we were also supplied with one steel pin. That was one of many makeshifts that were made. With regard to the more technical matter of the angles of elevation, we did in point of fact use a clinometer. The ships were so often in calm water and were such a very steady big platform, that part of our scheme for firing without any external point of aim, as regards elevation, was the chronometer. That was adopted before more technical and more secret forms of laying came in. The training was done by compass. It was a refined form of compass. As Sir George Aston knows, the normal elevation used in the Navy is that relative to the line of sight.

CAPTAIN CHARLES SLACK: I should be very much obliged if you could give us some more details with reference to the long range guns that were used—how they could be used effectively against the monitors during their bombardments. I refer to the very long range guns that were reported as being used towards the end of the War.

CAPTAIN ALTHAM: To a certain extent, the 18-inch gun was an effort to do that. It was not what would be called a super-range gun, but I do not know that the latter involved any difference in principle as regards the system of laying from that which we used. You laid the gun from the position of your ship, which was fixed on the chart, and you fired at a target which was fixed on a map. In point of fact, you have raised another interesting point, because one of the first things we appreciated was the importance of combining the chart of the sea with the map of the shore. When we first started, we had the two separate things, and combining them was very difficult. The principle, however, was the same. You fixed the ship and you fixed the battery ashore you intended to bombard. You had your target, which was marked on the map in the same way that we will say the particular part of Paris that was to be bombarded was marked, and you had to make the necessary gunnery calculations for the requisite bearing, elevation, and so on. The target was an invisible one, and whether it was ten miles away or 80 miles away really did not very materially affect the principle.

ADMIRAL SIR H. S. KING-HALL: Mr. Chairman, Ladies and Gentlemen. There is one experience connected with monitors in the late war that I should like to refer to, as it deals with one of the most successful pieces of work they carried out during the whole war. I refer to the destruction of the German cruiser "Königsberg" on the East Coast of Africa. The two monitors, the "Mersey" and the "Severn," that carried out that work were acting under my orders. In that connection, I should like to emphasise what Sir George Aston and the lecturer have referred to, namely, that we had a most accurate photographic copy of the river. We had a small air force out there, and they paid a great deal of attention to obtaining photographs of the different branches of the river. We located the ship by photography—we had, of course, a good chart of the place—and the monitors themselves were prepared very carefully. The two monitors to which I have referred belonged to the first lot of monitors built, as the lecturer has stated. We steel plated them as well as we could; we filled all their vacant spaces with empty petrol tins; we increased the training of the guns, and then the ships went up the river. When they got to their position, they moored head and stern. When we started working, we had six aeroplanes working from the island of Mafia, about 30 miles away from where the "Königsberg" was and from where the monitors were working. During the preparations for

the attack we had half-a-dozen aeroplanes, but gradually the climate proved too much for their constitutions and by the time we started the attack, we had only four left. I dare say many present to-day have been on the East Coast of Africa and know the extremely muggy, damp and hot state of the climate there. The climate affected the aircraft so much that some of their parts used to come unstuck; and the end of it was that we were two short of our original complement of six by the time the attack was started. We worked out a very speedy signalling scheme, and the monitors started firing, knowing their exact distance and bearing. They started firing at elevation by the arc. The first shots went very wide. As soon as the line was obtained, a tree was used as the line of direction. The result was that, although at first the firing was pretty wild, by the end of the first day they had hit her, but had not destroyed her; and then they had to come out of the river. When they went up on the second day, the aerial signals were so excellent that the guns got on to their target very quickly and knocked the "Königsberg" to pieces. They did it just in time, because the very last aeroplane that was left fit for service came down head over heels into the river alongside the monitors just when they had finished their work. They picked up the pilot and the observer and then came out. I thought it might be of interest to refer to this small action, which proved how successfully monitors' work can be combined with efficient aerial service. In order to obtain that efficient aerial service it is necessary, in my humble opinion, as the lecturer has already said, that the Air Force should be part of the Navy. The aeroplane officers we had on the occasion to which I have referred were reinforced by some of the officers of the ships under my command, but everybody was either a marine officer or a sailor; they belonged to the Royal Naval Air Service. I, therefore, wish strongly to reinforce the lecturer's suggestion that only naval officers should be used for the air work connected with the Navy.

THE CHAIRMAN (VICE-ADMIRAL SIR ROGER KEYES, BART.): Ladies and Gentlemen, We have listened to a very interesting lecture from an officer who, as I am sure you now appreciate, is very well qualified to speak on this subject. I mentioned, in introducing him to you, that his contribution to the fire control of monitors was of vital importance, because it enabled operations to be carried out at night with an accuracy which was not previously possible. Sir George Aston has referred to the question of co-operation between the Navy and the Army, and I think it will prove to be an interesting contribution to the discussion if I read to you a letter from a very gallant and capable soldier, Brigadier-General H. E. Street, who was a Brigadier-General on the General Staff of General Sir Francis Davies, commanding the 8th Army Corps at Helles. General Street, who lost his life later in France, wrote on the 16th November, 1915:

"1. The Corps Commander, who has been called away to-day, wishes me to express to you his appreciation of the excellent shooting of the cruiser and monitors yesterday, which undoubtedly contributed very largely to the ease with which our troops seized two very important positions in the enemy's line and added enormously to the moral effect and material damage done to the enemy.

"2. All who saw it agree as to the accuracy and value of the monitors' fire, but the chief point is that it has been established that co-operation in an attack has now become a practical reality, and that a system has been established which, with further development, will prove a powerful factor both in attack and defence.

"3. As regards the fire on the batteries, there is, of course, no record as to the actual damage done, but the fact that the Turkish artillery, though they fired more ammunition than they have done since our big attacks some months

ago, have never fired more wildly, and that their fire did practically no damage and did not hinder either the capture of the trenches or the consolidation of them afterwards, is sufficient evidence of the success achieved."

I think that is particularly interesting, because at the beginning of the operations, General Street, who was, I think, a Major on the staff of the 29th Division, then had a poor opinion of the value of naval gunfire at shore objects. We learned a very great deal from him, and he and certain naval officers worked out a really wonderful scheme of co-operation. He gave evidence about it before the Dardanelles Commission only a month or two before he was killed in France. He said something to this effect: "We place great reliance on naval gunfire. I would go so far as to say that we used destroyers like field batteries, trusting them to put down barrages within a few yards of our trenches." That was very valuable evidence, because certain members of the Dardanelles Commission tried to establish that the fire from ships was quite useless in land operations. Both Sir George Aston and the lecturer have said they hoped that this practising of bombardments and co-operation in land operations would continue. It is a fact that it does continue. Every year we carry out exercises on those lines, firing at unseen targets and using the ships of the first line as well as the monitors. Two of the principal monitors, the "Erebus" and the "Terror," are being kept efficient, so you may be quite certain that the experience gained in the War will not be lost.

I now ask you to accord a very hearty vote of thanks to Captain Altham for his very interesting lecture.

The resolution of thanks was carried by acclamation.

ADMIRAL SIR REGINALD TUPPER, G.B.E., K.C.B., C.V.O.: Ladies and Gentlemen, I ask you to join with me in offering our thanks to Sir Roger Keyes for so kindly taking the Chair to-day. No better Chairman for this most interesting lecture could possibly have been found; and I am sure you will agree with me that his remarks on Captain Altham's excellent lecture are very apt, very instructive, and also give us great confidence in the future.

The resolution of thanks was carried by acclamation, and the meeting terminated.



## THE SUPPLY AND TRAINING OF OFFICERS OF THE ROYAL AIR FORCE IN TIME OF WAR.

By GROUP-CAPTAIN P. B. JOUBERT DE LA FERTÉ, C.M.G.,  
D.S.O., R.A.F.

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On Wednesday, 21st November, 1923, at 3 p.m.

ADMIRAL SIR REGINALD G. O. TUPPER, G.B.E., K.C.B., C.V.O.  
(Chairman of the Council), in the Chair.

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THE CHAIRMAN : Ladies and Gentlemen, I am sorry to tell you that, at very short notice, I have been requested to take the Chair in the absence of Major-General The Rt. Hon. J. E. Seely, P.C., C.B., C.M.G., D.S.O., T.D., whom you all know very well, who has sent the following telegram : "Greatly regret, owing to political contest, quite impossible for me to preside lecture Wednesday. Seely, Brook House, Isle of Wight."

In introducing the lecturer this afternoon I may tell you that Captain Joubert de la Ferté is a very celebrated airman who commenced his career in the Royal Artillery, and then went to the Air Force and served with great distinction in France, Italy and Egypt. His present position is Deputy Director of Personnel in the Air Ministry, and I am quite sure we are all looking forward to a most interesting lecture on this very important subject.

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### LECTURE.

#### INTRODUCTION.

ANY attempt to consider the supply and training of Air Force Officers for war suffers from a difficulty which does not affect similar investigation in the case of the Navy and the Army. This difficulty is due to the lack of precedents and past experience to guide the investigator.

The Air Force at the outbreak of war was so small and so dependent on its two parent services that the experience of the pre-war days and of the first two years of the war are valueless. It is not until we come to the period when Air Service attained a fair proportion of its ultimate war strength that a study of the problems which faced the Directorate of Military Aeronautics in 1916, becomes profitable. It was in this year that the Royal Flying Corps first became a serious competitor with the Army and Navy for the man power of the nation, and it is from this date that I propose to put before you an outline of the difficulties that were met at the time, the steps that were taken to overcome them, and our suggestions for the future.

First and foremost came the question of accommodation, a question that affected us more seriously than the Army. The selection of a site suitable for an aerodrome and the construction of the necessary buildings is a far more laborious and lengthy matter than the erection of a hut camp for a battalion or even a brigade. The large size of the hangars, the huge span of their roofs and the necessary sliding doors, present constructional difficulties of no mean order.

Secondly, there was the difficulty of obtaining Instructors to train the crowd of volunteers that were anxious to join up. When the R.F.C. went overseas, it left behind it only one real training establishment, the Central Flying School, whose strength had been much depleted, to bring up to their requisite strength the units that were going abroad.

The R.A.F. never really recovered from this shortage and, right up to the end of the war, the training was defective both in quality and quantity.

Thirdly, came the question of the supply of material for training purposes. When the war broke out, the R.F.C. was entirely equipped with French aero engines, and there was only one type of aeroplane of British design.

Practically all our aircraft material had to come from France and this remained the case for some considerable time. Right up to the end of the war, we were still obtaining French engines.

The task of organising the British Engineering Industry to supply our wants, was one that bristled with difficulties. Barely a dozen firms in this country were actively engaged in making aircraft. Few of them employed more than 100 hands. Several of them less than this.

Another difficulty that had to be contended with, was the variety of types of aircraft and engines.

In 1915, there was at Dover a Training Squadron which had the following types of machines with which to carry out instruction of pupils :—

Maurice Farman (two types).	Bristol.
Henry Farman.	Martynside.
Bleriot.	B.E.2.a.
Morane.	

The difficulty of supplying spare parts to such an equipment was very serious. Another squadron in 1916 received as its initial equipment type "A" aircraft with type "B" engines; before the machines could be erected and flown, the engines were removed and type "C" engines allotted in lieu. Again, after a considerable amount of work had been carried out, type "C" engines were removed and type "B" engines replaced. These difficulties arose owing to the overriding demands of the overseas theatres of war, and caused a great deal of disorganisation.

Let us turn now to the means that were employed to overcome these difficulties.

As regards accommodation :— Requisitioning and compulsory

purchase, as far as land was concerned, and billeting and tentage as shelter for the *personnel* and machines, were the means employed. *Matériel* and *personnel* both suffered severely through being housed in makeshift shelters. Very often the aeroplane equipment of a squadron would be seriously affected by a spell of bad weather which penetrated or destroyed the indifferent protection afforded to them, with consequent delay in the training programme.

To give some idea of the time required to prepare a permanent aerodrome, even on suitable land, it is only necessary to say that, from the date on which the land is first surveyed, to that on which the aerodrome can be used, anything from 6 to 8 months may be required. Some aerodromes that were under construction in the early part of 1918 were not completed by the end of the war.

As regards provision of Instructors, there was only one way to achieve this, and that was to take officers from overseas on promotion, or when they showed signs of breaking down under the strain of active service, and put them on to flying instruction for varying periods in accordance with the requirements of the situation.

It was not until the end of the war that actual attempts were made to train instructors. All flying instruction was done very much by the light of nature, and until the School of Special Flying was formed at Gosport, no attempt was made to systematise and study flying instruction. The results obtained by this School were phenomenal and had a revolutionary effect upon the quality of the pilots turned out by the Training Schools. The data obtained during the two years the School was functioning have been employed as a basis for our present system of training, with most favourable results.

To give an indication of the lines upon which this school worked, I will draw a diagram upon the blackboard showing the one or two elementary facts about flying :—

(Here the lecturer gave a short description of reversed controls, steeply banked flying, and of landing across wind.)

Since the war, the work of the School of Special Flying has been carried on by the Experimental Flight at the Royal Aircraft Establishment, Farnborough.

I do not think it is necessary to refer to the expansion of the aircraft industry during the war. It was carried out on similar lines to the increase of other types of munition factories.

The same problems that faced us at the outbreak of the last war will face us again next time. Design of aircraft and engines is always at least two years ahead of production. Supplies of special material such as aircraft timbers, metals, and chemicals are likely to become depleted or even exhausted, and there is a crying need for the establishment of a large reserve of these necessary articles in peace time. Steps have already been taken by the Air Ministry in this direction, but there is a natural reluctance on the part of the Government Depart-



ment to lock up the nation's money in an unproductive reserve, and the Geddes Axe has also cut into attempts to make provision for the future.

#### SOURCES OF SUPPLY.

I will turn now to the sources from which we hope to draw our supply of young officers.

##### *Home.*

*Public Schools. Secondary Schools.*—Like the other two Services, we look primarily to the Public Schools and Universities to provide our needs. Secondary schools are also valuable, as the standard of education at these establishments has been greatly improved, and many service families who cannot afford the expenses of one of the Public Schools, are sending their boys to Secondary Schools. Finally, there is the open labour market.

Taking these three sources of supply in turn, I will give very roughly the number of recruits we are obtaining at present, and what we hope to get in the future.

*Cranwell.*—At the last competitive examination at Cranwell, we obtained 30 successful candidates. It is intended at the next examination to admit 45, provided we can get suitable boys. The annual entry in the future will be approximately 120, which is sufficient (with the University candidates and a small number of S.S.C. officers transferred to the permanent list) to provide the necessary establishment of permanent officers.

We hope to get twelve university candidates a year. At present we are only obtaining three or four. We believe that this is due to the fact that tutors at colleges have not been satisfied hitherto that the Air Force provides a permanent career. We hope to interest these gentlemen in the Air Force as a Service, and to be able to convince them that it has a future and that they will be justified in recommending their pupils to join.

As regards the short service commission, we estimated at the beginning of this year that we should get 150 suitable candidates. Actually, up till the end of September, that is during the first six months of the financial year, we obtained 247.

*Direct Entry.*—We feel that we shall have no difficulty in war time in obtaining an adequate supply of direct entry candidates, and the machinery of the short service commission will be admirably adapted to the exigencies of war. It is very improbable that we should expand our Cadet College to any great extent, in the event of war, since, as I have already said, we can always select short service commissioned officers to make up any deficiency that may exist on our permanent establishment.

##### *Abroad.*

Proposals have been placed before the Imperial Conference which, if put into effect, should enable us to draw upon the Dominions as a further

source of supply of officers. Canada, South Africa and Australia all have Citizen Air Forces and the germs of a civil aviation. As their services expand, it is possible that the Dominions will find it convenient to carry out the preliminary training of a certain number of recruits whom they will subsequently lend to the Mother Country for a period of short service, during which their education will be completed.

The Dominion Air Forces can never hope to have at their disposal the resources of an Imperial Air Force, and, therefore, could not give so complete a training. At the same time, the reserve thus built up, will be of inestimable value to them. I visualise the career of such an individual as one year's training in the Dominions, four years' active service in the Imperial Air Force, and four or more years' reserve service in the Dominion Reserve.

#### *Methods of Entry.*

*Publicity.*—As we are such a young Service, we find it very much more necessary to go in for publicity than is the case with the other two Services. The latter have their traditions, their Service families, and Service Associations spreading throughout the Empire, which enable them to keep their needs before the nation without having to resort to anything in the nature of a press campaign.

We, on the other hand, have to face the fact that we have few traditions, fewer Service families, and practically no Service Associations. Our only way of reaching the public is through the press, and by conversations with schoolmasters, and lectures before school boys. We find it necessary to publish broadcast our terms of service, to arrange for pressmen to visit our schools, and to throw open the life of the Service to the public gaze in a manner which may seem to some people in rather bad taste. But frankly I do not see how it can be avoided until the nation has got that "Air Sense" that the papers are so fond of talking about and which generally takes the form of "Good heavens! I would not be seen anywhere near an aeroplane, and I certainly shouldn't allow my son to join the Air Force."

There are three methods of entry into the Air Force:—

- (a) *Cranwell.*—Cranwell Cadet College, which is the training establishment for the permanent establishment of the Air Force.

Entry to this College is obtained through the means of a Competitive Examination carried out by the Civil Service Commissioners, which is in all respect similar to the Woolwich and Sandhurst examinations.

- (b) *Universities.*—Direct entry of University Candidates on to the Permanent Establishment of the Air Force. This scheme is identical to that of the War Office, and needs no explanation, other than to say that a University training is considered as equivalent to the Cranwell ground training.

- (c) *Short Service Commission.*—Direct entry on a short service commission. The Air Force is at present offering short service

commissions for five years to suitable candidates between the ages of 18 and 30. The types of individual who are at present applying for this short service commission vary greatly. Each week we get between 60 and 100 applicants, of whom some 30 conform with the regulations, and from these 30, the final selection is made by the Interviewing Board, which tests candidates as regards their educational qualifications and knowledge of engineering, in very general terms. At the present moment, a very large number of young fellows from public schools, who have been trained for an engineering career, appear before this Board, probably owing to the fact that there is a great slump in engineering.

We have not had the slightest difficulty in filling all our vacancies from the applicants for this type of service. It is difficult to assess correctly the influences that lead young fellows to apply for what, after all, is only temporary employment, and I can only hazard the following suggestions:—

Practically all of them hope that they will be among the few who are selected for permanent commissions every year (this number varies from year to year). Some of them, without doubt, appreciate the fact that if they do not like the service, they are not bound to go on with it and, through a spirit of adventure, wish to try it for a few years. Others see in it a chance of employment and an opportunity of increasing their engineering knowledge.

*Selection Boards.*—The work of the Interviewing Board is far from easy. Candidates come forward with the most meagre references and very little information as to their past history. It is only in the cases of ex-Service men that we can get any sound information as to their past through records of service and by application to the War Office or Admiralty. Consequently, all depends upon the Board's power of correctly reading character and intellectual ability, in the short space of time that is available.

The time taken over each candidate by the Board varies, but on the average works out at fifteen minutes. During this period each member of the Board takes a turn in cross-questioning the candidate, while the others watch him carefully for the 101 small signs that experience shows will give a hint as to his suitability as a pilot.

*Medical Examination.*—After the Interviewing Board, there is the further obstacle of the Medical Examination, which, needless to say, is extremely strict. It is not within my province to describe the details of this examination, but I can give its salient points. Firstly—great stress is laid on the candidate's physical condition, the soundness of his organs, the rapidity of his reactions, his breathing and hearing. Next in importance comes sight, and lastly physique. By physique, I mean size and weight, as opposed to sound conditions of health. We do not

find it necessary to insist on great muscular development or any standard of height; what we are concerned in chiefly is a good heart, lungs and digestion, a clear brain and a healthy method of life.

*Competition with other Services.*—There is an ample supply of young men in this country to fill the needs of all three Services, provided the system of entry into them is co-ordinated.

I understand there is a Committee sitting at the moment, whose activities are directed towards ensuring in war time that no one Service will be favoured at the expense of the other two. Whether it will be possible in peace time to avoid competition, appears unlikely, since both the Army and ourselves are finding it difficult to fill our Cadet Colleges and it is natural that the Army should look with a certain amount of resentment at any efforts on our part which may tend to still further reduce their supply of candidates.

Provided, however, that the age of entry, the method of examination and the qualifications are subjects of mutual arrangement between the Army and the Air Force, it does not appear that either will have an unfair advantage over the other. It is interesting, in this connection, to note that there is a suggestion that the Army should raise its lower age limit for entry to the Cadet Colleges to 18, and reduce the period of instruction at the Colleges to 18 months. Such a system would not suit the Air Force for obvious reasons, the principal one being that it is impossible to carry out the flying instruction as well as the ordinary training in so short a space of time. It is likely, therefore, that if such a scheme is carried out, it will have an adverse effect on one or other of the services. It would seem that there is real need for the two services to put their cards on the table and, together with the educational authorities of this country, formulate a policy which will be fair to both, and will obtain the best results.

*Training.*—I must now refer to the training of the young officer in the Air Force. Firstly, as regards the regular officer entering through Cranwell. At this institution, a boy does two years' training on very similar lines to those of Woolwich and Sandhurst. In addition, he is given the elements of an engineering training and is taught to fly a service aeroplane. The closest attention is paid to athletics and the boys are encouraged to keep fit, as an essential qualification of an efficient pilot.

After Cranwell, on first commissioning, the young officer is posted to a service unit at home or abroad, and for varying periods, the average of which is fixed at 5½ years, he carries out his duties as a pilot. At the end of this time he is expected to specialise in one of several branches, either engineering, signalling, photography, armament or staff duties; and along one of these channels he looks for his promotion. An officer who does not specialise, has little, if any, hope of promotion above the rank of Squadron Leader. When I say he is expected to specialise, I do not mean that he ceases flying. He is supposed to carry on with his flying as an essential part of his normal duties, and all officers of the

General Duties Branch are expected to fly either as pilot or passenger till the end of their service.

If by any mischance an officer on the General Duties List becomes permanently incapacitated for flying at an early stage in his career, he has a further avenue available in the Stores Branch, to which he can be transferred. Since an officer of the Stores Branch is not expected to be a pilot, there is a corresponding reduction in the rate of pay, and no officer in the Stores Branch can hope to obtain a high rank in the Air Force.

Secondly, as regards the short service commission officer. On the grant of a probationary commission he is posted direct to a Flying Training School, where he undergoes a course of approximately a year, during which he goes through an extensive programme of ground training in discipline, stores, pay, accounting, meteorology, navigation and armament. In addition, he is taught to fly a Service aeroplane.

On passing out successfully from the Flying Training School, he is confirmed in his rank and is subsequently promoted on the strength of the percentage of marks he obtains on his passing-out examination. That is to say, the higher the marks he gets, the sooner will he be promoted.

As soon as he leaves the school, he is posted to a service unit, and it is the policy of the Air Force to keep him at that unit for the whole of his remaining four years of service.

At the end of his engagement, he is transferred to the reserve for a further period of four years. During his reserve service, he undergoes periodical training in flying. At the present moment, this training is being carried out at Civilian Flying Schools under the supervision of a small regular staff.

If a reserve officer continues to be efficient, his service may be extended in periods of four years, up to the time that he reaches the retiring age of his rank, which, in the case of Flying Officers, is 40.

I have referred to the different methods by which an officer can specialise, and have pointed out that Staff Duties is one of the avenues along which he can seek promotion. Our present system of training Staff Officers is by means of the Air Force Staff College at Andover. Officers wishing to undergo the course at this establishment have to pass a qualifying examination, and from those successful, a batch is selected by the Air Ministry. The course is one year, and it is hoped in time to increase this to two years, as it is found almost impossible properly to cover the ground in the time at present at our disposal. In addition to our own Staff College, we avail ourselves most gratefully of the facilities placed at our disposal by the Navy and the Army, who allow us to send a small number of officers to their own Staff Colleges every year.

Before leaving the subject of training in peace, I must refer briefly to the various courses which are open to permanent Air Force Officers. One of the most important is the Engineering Course. This starts with a period of one year at the Royal Aircraft Establishment, Farnborough. During this time, the student undergoes preliminary training



in the elements of engineering. After passing through Farnborough, the student proceeds to Cambridge, where he does an advanced course of three years. From amongst those successfully completing this course, a very few of the most brilliant are selected to undergo a final course of 10 months at the Imperial College or the National Physical Laboratory, Teddington. These last are officers who intend to specialise in research work.

Other courses are :—

- (a) Wireless.—One year at Flower Down.
- (b) Armament at Eastchurch.
- (c) Photography at Farnborough.
- (d) Storekeeping at Kidbrooke
- (e) Navigation at Calshot.

*Preparations for War.*—It is not possible to do more than sketch what is proposed with regard to expansion to meet the needs of war. Certain of the Home Defence Squadrons are to be organised on a cadre basis, others on a territorial basis. Our Reserve will be so organised that there will be different categories of reserve officers and airmen who will complete :—

- (a) the regular squadrons,
- (b) the cadre squadrons,
- (c) the auxiliary squadrons,

on the outbreak of war.

These squadrons will mobilise at their peace stations, and, in a certain number of cases, move at once to their war stations. A proportion of the squadrons in England will be organised on a mobile basis, which will enable them to accompany the Expeditionary Force overseas.

*War-time Emergency Measures.*—It must be remembered that it will be perfectly possible to speed up our flying training in an emergency. The present system is based on the principle of eliminating every risk that it is humanly possible to remove. The period of dual control instruction is very long and is frequently repeated. Under the present system, an officer does on the average 10 hours dual control and 50 hours solo, before he is considered to have qualified as a pilot.

Experience in the last war showed that an officer was quite capable of carrying out the duties of a war-time pilot after a total flying time of 40 hours, which, of course, can be compressed into a relatively short space of time.

The deterrent factors to the speeding up of flying training are the limited availability of machines and instructors. The latter is generally the more serious obstacle.

While on this subject of training, it will not be out of place to refer to certain psychological manifestations that can be observed during flying training. Pilots and pupils are as much swayed by fashions in aeroplanes, as women are by fashions in shoes. A machine which in one



squadron is considered excellent in every way, perfectly safe, and delightful to fly, may be regarded with horror by another squadron.

The mental atmosphere of the pupils' mess, the characteristics of their instructors, the flying qualifications of their Commanding Officers all have a very real bearing on the success or otherwise of the training. More so, perhaps, than in any other military organisation.

Again I would refer to the necessity for placing games and exercise in a very important position in the curriculum.

*Reinforcements.*—It is practically impossible to forecast with any accuracy the scale of reinforcements that may be required. So many factors are involved :—

- (a) A tactical surprise on the part of the enemy, *i.e.*, a more efficient anti-aircraft gun or a new device for bringing accurate fire to bear from one aeroplane on another.
- (b) The intensity of the fighting in the air.
- (c) The necessity for carrying out low bombing attacks.
- (d) The reactions of the enemy to such attacks.

As a rough guide, we have laid down that in a European War of the first magnitude, we shall require 10 per cent. first reinforcements and 500 per cent. per annum (40 per cent. a month), but it is very probable that with further improvements in anti-aircraft guns, an increase in their numbers, and more effective armament of aircraft, the casualties will be largely increased.

*Fatigue.*—A very serious problem we have to face, is that of fatigue. By this I mean the gradual reduction of a pilot's fighting capacity, owing to a number of causes, whose effects are summed up in the word psychoneurosis.

It is unquestionable that our policy in the last war of sending pilots home to do a tour of training duty had the effect of enabling a large number to "come back."

It is practically certain that we should continue this policy in a future war.

Sometimes, however, a man has gone too far downhill to be able to recover, and not the least of our anxieties will be to discover some means of employing this type of individual, who is frequently quite unfitted for administrative employment.

*Future developments in Aircraft.*—Finally, I want to say a few words as to the effect that the trend of design in modern aircraft will have upon personnel. The old fashioned aeroplane was as simple as the early motor-car. But now-a-days, the engine-room of a modern liner is more full of gadgets than is the cockpit of the latest aeroplane. Altimeters, tachimeters, thermometers, pressure-gauges, compasses and inclinometers jostle each other on the instrument board, while incidence controls, tail plane adjusters, camera handles, bombrack toggles and machine-gun gear hamper the pilot's every movement. To compete with all these

complications, one must either evolve a superman, or else have a sub-division of responsibility amongst a larger crew.

In the latest aeroplane designed for the Navy, there is room for four people: the pilot, the gunner, the observer and the wireless operator. In the big twin-engined machines there is also an engineer.

Unless a reaction towards simplification takes place, it seems certain that the senior officer in an aeroplane will become more a commander than the actual driver of an aeroplane. Once the machine is in the air he will probably hand over the operation of flying to a subordinate, and keep the navigation and general control only in his own hands.

As "any fool can fly an aeroplane, but it takes a pilot to land it," it is probable that the senior officer will take over complete charge when approaching the ground to land, or in any other difficult circumstance.

Consequently, while we shall still require officers to be pilots, it seems likely that we shall be able to develop the N.C.O. pilot for the big machine, and the fighting machine of light and simple type, provided that there is an officer to lead a formation of such machines.

The general tendency, therefore, would be to reduce our requirements in officers approximately to the same standard as the Army, although we should always have a slightly greater proportion of officers to other ranks.

#### DISCUSSION.

CAPTAIN CHARLES SLACK: Mr. Chairman, Ladies and Gentlemen, nothing has been said by the lecturer as to the height at which it is possible to fly. I think a good deal hinges on that important question; at all events I think a little explanation might be given by the lecturer with regard to it. A few years ago Mr. Coxley flew to a height of 35,000 ft. or thereabouts, and since then some French aviators have tried to exceed that height. I think they succeeded in getting a very little higher, not as much as 1,000 ft. more. In view of the engines and propellers which can now be used in aeroplanes, I think something might be said by the lecturer on the subject of how high flying can be carried out.

GROUP-CAPTAIN P. B. JOUBERT DE LA FERTÉ: I am afraid the question that has been asked is rather outside the province of my lecture, and there are several officers in the audience who are more qualified to answer it than I am. I think I am right in saying that our point is not to see how high we can fly, but to see how low we can fly with safety to ourselves in a war, the point being that, if you fly at a tremendous height, you cannot see what is happening on the ground. Our position in a war is first of all to down the enemy in the air, and after that we want to see what the enemy on the ground is doing. It is perfectly possible to reach almost any height. I should imagine that 40,000 ft. is not beyond our possibilities now-a-days. It is simply a question of constructing a machine specially for the purpose of climbing high. The French aviator that Captain Slack referred to must, I think, be Sadi Lecoq, who reached a height of 35,000 ft. He built a machine which was called "Le Grimpeur," the climber. It was built specially for that one purpose. It was not necessarily a good war machine. At the present moment, in this country, as far as the Air Force is concerned, we are deliberately designing machines for war and not for the purpose of attacking height records. The American Air Service unquestionably

specialises on attacking records, by building flying projectiles to do 280 miles an hour. It does not at all follow that those machines are good war machines. To my mind, our eyes must be chiefly fixed on the lowest height at which we can carry out our duties of assisting the Army and the Navy in their work on the ground and on the water, and upon what is the most efficient machine we can build to carry out those duties. If we find the enemy is flying at a greater height than we are and is thus able to get the tactical advantage which is so important in an air fight, then we shall have to neglect the co-operation part of the operation and concentrate on obtaining the necessary tactical advantage, by building machines that can outfly the enemy.

CAPTAIN CHARLES SLACK: I know that the rarity of the atmosphere has a very important effect in connection with high flying. It is reported that Mr. Coxley, who flew to the height that I have previously stated, had his hands so frozen that he could not pull the cord for the gas to be released, and had it not been for the fact that he seized the cord with his teeth, we should probably never have heard anything about it. Another question arises, if I am not trespassing too much on your time, in regard to flying still higher—not 40,000 ft., but 80,000 ft. if you like. If a hermetically sealed chamber is provided, that will allow the aviator to be independent of the rarity of the atmosphere. I merely mention that point, because aerial navigation hinges upon it a good deal.

WING-COMMANDER T. R. CAVE-BROWN-CAVE: Ladies and Gentlemen, I was particularly interested in what Group-Captain Joubert said with regard to the engineering students who had finished their engineering training, coming into the Air Force for a short time because of the depression in the engineering world. I cannot imagine a more suitable sequel to an engineering training than to come into the Air Force for a short time. During the war, I came in contact with a great number of officers who came into the Force from the scientific and engineering establishments, and they were all very much impressed with the enormous opening there was in the flying service for people with engineering and scientific training. If one reflects, it is obvious why that is so. Aircraft are at an early stage of development, and there is the very greatest scope for people with abilities, to make a name for themselves or to do really useful work if they come into contact with aircraft work. That raises one further point, which I have no doubt is provided for in the aircraft organisation for war, but as Captain Joubert did not mention it, perhaps it might be worth while to refer to it. I think everybody realises that in the early stages of war there will be very rapid changes in aircraft and in the weapons they use; and in order that we may have an advantage over the enemy in those changes, it is most necessary that we should have available the best scientific and engineering ability which exists in the nation. In the early stages of the R.N.A.S. there was an enormous dearth of first class technical officers. We were very short indeed of them. When matters were a little better organised, we managed to get back from France and various other places, officers of the highest technical ability, and I think most people in this room realise the remarkable advance that was made in aircraft work from that time. I suggest that, in the last war, a considerable time elapsed before that advance on the material side started, and it is most necessary that in any war which may come about in the future, we should have that technical and scientific ability available, so that we can put our hands on it at the earliest possible moment. I have not the least doubt that this is provided for in the organisation, but the point is such an important one that I think it is worth raising in the course of this discussion.

GROUP-CAPTAIN P. B. JOUBERT DE LA FERTÉ : That is provided for, but it is not as parochial as you suggest; it is a national thing. The Committee of Imperial Defence are most intimately concerned in that question, and a Committee has been sitting for the last three years, working out the details of how to put the round pegs into the round holes and the square pegs into the square holes, if there is another big war.

WING-COMMANDER CAVE-BROWN-CAVE : I hope we shall have our share in that.

THE CHAIRMAN (Admiral Sir Reginald Tupper) : There are one or two questions I should like to ask the lecturer, if I may do so. I did not hear him refer, in the course of his most interesting lecture, to the question of Civil Aviation assisting the Royal Air Force. Another point that I should like to put to him is this. As we all know, only *young* officers are really "top-hole" pilots. It seems to me that, as aviation develops, the young military officer will go through his aviation course, and the young naval officer will go through his aviation course, as well as the young officer connected with the Royal Air Force. That being the case, an officer who has flown as a pilot, say, for three or four years, or until he wants a bit of a rest, goes back into the Army or the Navy to resume his ordinary naval or military life. I am afraid that is not a popular theory in the Royal Air Force at present, but there is a difficulty in knowing what to do with young fellows as they get older and can no longer fly machines with maximum efficiency in the Royal Air Force as it exists now, and as it will exist in the future. There is not enough room in the high ranks for the officer pilots that originally entered, and also for N.C.O. pilots. You want a great many more pilots than you want officers and men for administration or other purposes on land. I have had a little to do with the air, because I had four air stations under my charge towards the end of the War; but I do not know enough about the matter to give a considered opinion in regard to it, excepting that I am convinced it is necessary to have specially trained Naval Pilots, for work with the Fleet. I am simply making these remarks in order to draw more information from our lecturer.

GROUP-CAPTAIN P. B. JOUBERT DE LA FERTÉ : The Chairman has attacked me with some very heavy metal indeed, but I think I have at least one shot left in my locker. It is this. I have not stressed that point at all, because it did not really come within the scope of my lecture. But I can give you some figures which I think speak more clearly than any amount of talk. At the present moment, the Air Force is divided into two halves. There is the permanent side and the short service side. The Short Service Commission is a scheme organised primarily to defeat the difficulty referred to by the Chairman; that is to say, we take a man in for five years to fly and do nothing else but fly. At the end of those five years, we relegate him to the reserve. We only keep on the permanent side sufficient officers to fill the administrative, technical, and other posts that are required. The number of those posts is based on what will provide a reasonable flow of promotion and a reasonable career in the Air Service. At the present moment, a junior officer joining from Cranwell has exactly the same expectation of promotion on the permanent side, as an officer joining the Army through Woolwich and Sandhurst. It is not so good as the Naval Cadet joining at Dartmouth. The prospects of a young naval officer have always been better than those of the young Army officer, and, I presume, will continue to be so. For every permanent officer there is a short service officer. The short

service officers represent the bulk of the pilots who are actively flying. In addition, if the total number of permanent officers is  $x$ , then half of  $x$  are actively flying pilots. In fact, speaking roughly I should say more than half, because about 700 out of 1,200 are actively flying pilots. The remainder are of sufficiently senior rank to be occupied in staff and administrative duties. The N.C.O. pilot will be on exactly the same footing as the short service officer. When he ceases to be useful as a pilot, he reverts to his trade in the Air Force. We draw our N.C.O. pilots from our own tradesmen—fitters, riggers, carpenters, acetylene welders, and all that sort of thing. They do four, five or six years as a pilot, and at the end of that time, if they are no longer any use as pilots, they either revert to their trade, or, if they have lost their trade, they either become what we call Group 5 (unskilled men) or ultimately, if they are declared unfit either for the duties of a pilot or of their trade, they will be discharged. The N.C.O. pilot, therefore, presents no problems at all, as far as absorption is concerned. The moment his flying utility dies away he can be at once absorbed into any sphere in which we find him most useful. We expect the permanent officer to fly hard for  $5\frac{1}{2}$  years; as I have told you, that is about the average time. After that time he still continues flying either as pilot or passenger, whichever he is more fitted for, but he specialises in some of the four or five branches which I have mentioned—staff duties, photography, wireless, engineering, armament. So that there is a very definite career for the permanent officer in the present organisation. The difficulty I referred to of absorbing the tired officer only becomes acute in war time, and not even then, if we can come to some arrangement with the other Services so that they will absorb our fellows when they can no longer fly.

THE CHAIRMAN: Do you pay the Reserve?

CAPTAIN JOUBERT: They get a retaining fee. They come up every year for about 24 days' training, and during that time they have pay and allowances as a flying officer. It is just like any other Reservist. He does his annual training, and he carries out his lawful duties as a private citizen for the rest of his time. In time of war, he can be called upon. As far as the question of civil aviation is concerned, that is going to be dealt with exhaustively by Air-Commodore Clarke-Hall, later in the year. I can only say this about civil aviation at the moment, that, as civil aviation is at present constituted, we cannot, from an Air Ministry point of view, consider it as an adequate reserve. What it will develop into in the future is a thing that no man, least of all I, can tell you. We hope it may be as useful to us as the Mercantile Marine is to the Navy, but at the present moment we have got to trim our sails quite differently.

WING-COMMANDER PRETYMAN: I should like to quote an opinion which is strongly held in the Service,—that an officer who learned to fly during the last war, will be able to go on flying in some manner or other, not necessarily first line flying, for the rest of his life. An officer trained for the air can fly in the air for the same time that a naval officer can go to sea. That is an opinion held by a large number of officers in the Royal Air Force. There are still a number of officers and others flying hard, who were flying as far back as 1912; in the three or four years hard flying on active service they have probably equalled 10 or 15 years of flying in ordinary peace time; so that I do not think it is at all unreasonable to suppose that young officers starting now, when things are very much easier and safer than they used to be before the War, can go on

flying for the rest of their lives. I do not think that this point is sufficiently appreciated by the general public.

THE CHAIRMAN: Ladies and Gentlemen, it only remains for me to thank the lecturer very much indeed for the most interesting paper he has given us to-day. We have all learned a great deal from him this afternoon, and personally I am very much obliged to him for answering the conundrums that I put to him. I also desire to thank those officers who took part in the interesting discussion.

The resolution of thanks was carried by acclamation, and the meeting terminated.





## THE SUPPLY AND TRAINING OF OFFICERS FOR THE ROYAL NAVY.

By VICE-ADMIRAL V. H. G. BERNARD, C.B.

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Wednesday, 5th December, 1923, at 3 p.m.

ADMIRAL SIR R. G. O. TUPPER, G.B.E., K.C.B., C.V.O. (Chairman of Council), in the Chair.

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THE CHAIRMAN : We are here to-day to listen to a lecture prepared by Vice-Admiral Bernard, on "The Supply and Training of Officers for the Royal Navy." As you all know, Admiral Bernard has had a distinguished career. Those who attended Captain Altham's lecture on Monitors and the operations on the Belgian Coast in the early part of the War will remember that he mentioned a battleship taking part in the bombardments, and so on. It so happens that Admiral Bernard was the Captain of that battleship—the "Venerable"—which, in the initial stages, took part in those operations. Then the "Venerable" went out to the Mediterranean, and took part in the events out there—Gallipoli, and so on. Then Admiral Bernard came home and commanded the battleship "Neptune" in the Grand Fleet. Admiral Bernard was a distinguished gunnery officer in his early years, and is an officer who always takes the greatest pains in preparing and carrying out anything which he is given to do. He kindly volunteered to prepare a lecture on this very important subject, and I am sure you will find the lecture most interesting.

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### LECTURE.

IN the early days of our history, seamen worked our fighting ships while soldiers fought them. There was a long transition period during which some ships were commanded by seamen proper, and some by soldiers or even landmen, who depended on their subordinates for the proper handling of the ships.

Difficulties arose owing to the fact that social rank, which in its origin was based on a military organisation, took precedence to the service rank of the day, and this was to some extent obviated by appointing young men of good family to command ships and squadrons, with experienced seamen under them.

Macaulay tells us that Monk, when he wished his ship to tack to larboard, moved the mirth of his crew by calling out : "Wheel to the left."

Charles II., in building up a corps of naval officers, was confronted with the problem as to whether he should take masters and mates from

the merchant service or train up sons of the nobility and gentry. He decided on the latter course, and instituted what came to be known as "King's Letter Boys."<sup>1</sup> These carried a letter ordering the Captain of a ship to enter the bearer on ship's books as a "Volunteer by Order." The system continued well into the eighteenth century. Another system had also sprung up, by which Captains of His Majesty's Ships entered the names of boys they were interested in as Captain's servant on the ship's books. It appears that Admirals and Captains were allowed servants in number far beyond their requirements. Sir Charles Walker tells me that he has found some old Orders in Council on the subject. Towards the end of the seventeenth century the scale of servants for Flag Officers was :—

Admiral of the Fleet	...	...	...	...	...	50
Admiral	...	...	...	...	...	30
Vice-Admiral	...	...	...	...	...	20
Rear-Admiral	...	...	...	...	...	15

An Order in Council of 22nd February, 1693, effected considerable reductions, with substantial allowances in lieu.

There was such an outcry, however, that the servants were restored in 1700.

There are numerous instances of children in the nursery being borne on ship's books as Captain's servants until they were old enough to embark. As they became older, they were rated volunteer or midshipmen, in some cases passing first through the ratings of ordinary or able seamen.

The celebrated Thomas Cochrane, tenth Earl of Dundonald, was entered as a Captain's servant when five years old, being kept on various ships' books for years. His father meanwhile, having originally intended him for the Army, had obtained for him a Captaincy in the 79th Foot. He did not join his first ship till he was nearly 18. Much the same thing went on in the Army, I believe. Mr. L. G. Carr Laughton, to whom I am much indebted for assistance in preparing this lecture, has told me of a Sir Thomas Maitland, one time Governor of Malta, who as a baby received a commission as Lieutenant in a marching regiment and was four years old when the regiment was disbanded. I understand that even then he drew his half-pay as a Lieutenant.

It was, I am told, owing to the demand for a sufficiently comprehensive term that the expression "young gentlemen" came so much into use in the service. It is interesting to note from Sir Edward Bradford's life of Sir Arthur Wilson, that Sir Arthur Wilson's father, George Knyvet Wilson, joined the Navy as a first-class boy on board H.M.S. "Minden," at the age of 14.

In 1729, the practice of giving the youngsters some preliminary training ashore commenced in the establishment of the Royal Naval Academy at Portsmouth, under an Order in Council of George II. This

<sup>1</sup> The "Young Gentlemen" sent by Henry VIII. to serve as volunteers with the Lord Admiral.

academy was designed to accommodate 40 boys, the sons of noblemen or gentlemen, the age of admission being 13 to 16, and the time under training, two to three years. On going to sea, they were rated on ship's books as " Volunteer by Order " and received the pay of an able seaman.

The other systems of entry still continued. The Academy was not popular and was never up to its full strength. In 1773, fifteen sons of commissioned Naval Officers were admitted to the Academy at the expense of the Crown. In 1806, the Academy was enlarged and became the Royal Naval College, Portsmouth. In 1837 it was closed down, and for a period of 20 years, no preliminary training was given to the young gentlemen before they went afloat. The College was, however, reopened in 1839 for voluntary study by commissioned officers, and it appears that young gentlemen joining the Navy were then required to pass a qualifying examination in ordinary school subjects, before being entered on ship's books in the new rating of Naval Cadet. H.M.S. " Excellent " was commissioned as a Gunnery Training Establishment at Portsmouth in 1832. After that, a qualification in Gunnery was required for the rank of Lieutenant, in addition to qualifications in Seamanship and Navigation.

In 1857, owing largely to the representations of Captain Robert Harris (father of the present Admiral Sir Robert Hastings Harris, K.C.B., K.C.M.G.), H.M.S. " Illustrious " became a training ship at Portsmouth for all Naval Cadets. She was replaced two years later by H.M.S. " Britannia." In 1862 H.M.S. " Britannia " was moved to Portland, and in 1863 to Dartmouth. The " Britannia " system lasted till 1903. It experienced various vicissitudes. The age of entry, originally fixed at 13 to 15, went down to 12 to 13, and mounted up again, ending in 1903 at an average of 15. Competitive examination for admission was introduced, abolished, and re-introduced. Similarly, a seagoing training ship was introduced, abolished, and re-introduced.

In considering to-day the entry and training of Officers for the Royal Navy, the first thought occurring to the mind is, what do we require in our Naval Officers? I suggest the following :—

1. Physical fitness.
2. Character.
3. Ability to lead and command, which includes initiative.
4. Professional knowledge.
5. General knowledge.

Physical fitness, you will all agree, is essential to efficiency. Nobody can make the best of his own capabilities unless he is physically fit, and this applies very strongly to a Service like the Royal Navy, where quick decision followed by prompt execution is the rule. All candidates for the Royal Navy have to pass a strict medical examination, and I think we can take it that they are physically fit when they enter.

While at Dartmouth, and in the seagoing training ship, besides doing regular physical drill, cadets are encouraged to engage in most of the recognised forms of outdoor exercise. At Dartmouth, they are fully

provided with facilities for doing so. When discharged as midshipmen into seagoing ships, at the age of 18, they should be in splendid condition. Here a great responsibility rests on the Captains of ships, the Commanders and other officers under whom the midshipmen are serving, for at this stage of their lives, these youngsters may first have to meet the two great temptations to which man is liable. It is important to the Service, and only fair to them, that they should be properly equipped for doing so. This responsibility is fully realised, and is, on the whole, well-shouldered. Lectures on hygiene generally, including the evil effects of alcohol, the dangers and pitfalls in the path of young manhood, the importance of physical fitness, and the best methods for procuring and retaining it, are most necessary. The lure of alcohol is particularly insidious to those susceptible to it, in a Service like the Royal Navy, where a period of continuous and prolonged strain is frequently followed by one of comparative idleness. A thorough appreciation of the dangers attending some forms of indulgence, and of the importance of maintaining physical fitness, should occupy a prominent position in the education of the young Naval Officer. The addition to the Admiralty of a Department for physical training and recreation bears testimony to the importance attached to physical fitness.

Character is probably to a large extent hereditary, and is, at any rate, largely affected by a boy's bringing up and environment from the day he is placed in his nurse's arms. In entering the boys who are to form our raw material, we must consider who their parents are, for, apart from hereditary considerations, the right type of parent will administer the right teaching to his offspring in early youth, and develop his character on the right lines. The boy's character is further developed at school, and the schools in which he has been brought up, also give us some guide as to the type of boy we may expect him to be. The headmaster's report again affords valuable information, and if, on top of these, we have an efficient interviewing board who know the type of boy they require, followed by careful watching after entry, with a view to eliminating any unsuitable boys who may have got in, I can think of no better method for ensuring that we get the most suitable material for moulding into the type of officer we require.

The special qualities sought for in the candidate for the military branch of the Navy, are personality, intelligence, and leadership; and the spirit of the Navy should be instilled into them from the time they become Naval Cadets.

If anyone asks me what is meant by the spirit of the Navy, I would refer him to Rear-Admiral Hopwood's poem, "The Laws of the Navy." Perhaps it is best summed up in the two words *Loyalty* and *Efficiency*.

They must be taught from the beginning to be loyal to their ship, to their squadron, to their men, to their officers, to the Admiralty and to their King. Efficiency, they must be always striving after, and here I may remark that efficiency is an ideal, for no individual or organisation can reach such a state of efficiency that it cannot be improved upon.

They should also learn to imbibe Naval traditions, and the earlier in their lives, the better. We are very fortunate, in the Royal Navy, in having great traditions to live up to. Naval Officers and men in the days before our time, from the seventeenth century onwards, men like Raleigh, Drake, Hawkins, Anson, Hawke, St. Vincent, Nelson, and many others, have passed on to us a wonderful record of achievement in the face of difficulties. We want our young officers to appreciate these traditions and the importance of trying to live up to them; to acquire the temperament which welcomes difficulties as providing opportunities for showing what they can do; the temperament which is not disturbed by unpleasant surprises, and which can display cheery confidence when things look black.

The earlier they commence acquiring this temperament, the earlier they begin to appreciate naval traditions, the better. This brings us to the question of age. From the time the "Illustrious" started training naval cadets at Portsmouth, up to the introduction of the present system, the age of entry has continually varied; in 1869 it was fixed at 12 to 13. In the last days of the "Britannia," the average age of entry was 15. In 1903, it was 12 to 13 again. Now, to obtain a high standard, we require as plentiful a supply as possible of the material we have chosen. We get the best supply when the ages of admission are made to conform to the natural breaks in the educational system of the country.

The average age for boys to leave preparatory schools for public schools, is  $13\frac{1}{2}$  and that for leaving public schools is 18. An advantage lies in each of these ages, as neither conflicts with the natural desire of the schoolmaster to retain his boys until he has completed that part of their education which his school provides.

At present, we are tapping both sources, but the main supply is being drawn from the younger course and this I think is inevitable. The public schools already supply the Army, Air Force, the Royal Marines, the Varsities, and I understand also that a large number of these boys now go direct from public schools into business offices. The preparatory schools feed the Navy, the public schools, and to some extent the Merchant Service. A sea life seems to appeal more to the imagination of the younger boy and he takes more readily to its discomforts. At the age of 18, such objections as obstacles to matrimony, the long absences from home, the possibilities of half-pay in the senior ranks, and perhaps other disabilities, loom larger in his eyes. He may not always think of them himself, but they will be brought to his notice by friends and relations. He has begun to taste the comforts and enjoyments of manhood, a comfortable home with a room to himself, the prospect of a good time at the University, all tend to make him fight shy of the comparative hardships in the life of a midshipman or sub-lieutenant.

For these reasons, I believe that quite a number of boys who come in at  $13\frac{1}{2}$  would not do so at 18. Once in the service and bitten with its spirit, they are glad to remain. The Dartmouth system produces midshipmen at the average age of  $17\frac{1}{2}$ , whereas the Special Entry System



does not yield them till the average age of 19. Early entry has, therefore, a permanent advantage in the matter of early sea experience. The education of a modern Naval Officer must be highly scientific. It has been truly said that the one and only basis of scientific knowledge is mathematics. The late Professor Laughton, in a lecture given in this hall in 1882, although he advocated later entry than then obtained, admitted that a real and sound knowledge of elementary mathematics can, as a general rule, only be acquired in boyhood. He thought this knowledge could best be acquired at a public school, but at the same time he advocated the boys' being sent to sea at 16, a procedure which would not enlist the sympathies of the headmasters. The ordinary curriculum of the public schools does not include the extensive mathematical training which is given at Dartmouth. Boys at public schools who wish to go up for the Navy are put into the Army Class as soon as they are up to the standard. In this class they receive a mathematical education. I gather, from questioning the boys, that the time spent in the Army Class varies from two years to six months. Taking the extremes, one boy decided, at the age of 16 to try for the Navy and, being up to standard, entered the Army Class at once. Another did not get in till just six months before the examination. There is, I believe, no school in the Country with a curriculum which can compare with that at Dartmouth for a mathematical and scientific education, or one so suitable for the purposes of the Navy. In this connection, a report of an inspection of the Osborne and Dartmouth Colleges by Board of Education Inspectors in May, 1912, is of great interest. It will be found in Parliamentary Paper Cd. 6703/1913, Report of Admiral Sir Reginald Custance's Committee. Amongst other things they remarked :—

" It is rare to find a school in which the problem of the curriculum, always a difficult one, has been so carefully considered and reconsidered, as in the Colleges." As regards English, they say :—" As a whole, the work appears to be singularly successful in teaching the cadets to express themselves in clear and vigorous English, and in inspiring them with a taste for reading." Then again they remark :—" It is practically certain that no ordinary preparatory school could afford to provide the equipment and staff and secure the effective organisation to be found at Osborne." Another remark is with regard to Engineering :—" The provision for workshop instruction at the two colleges, both as regards equipment and staff, is on a scale which is not attempted in any technical institution in the country, while the organisation of the work is as perfect as it well can be."

I was very much struck by a remark, in a memorandum which I have been privileged to read, which was drawn up in February, 1918, by the Headmaster of Osborne College. He wrote :—

" The industry of the Osborne-Dartmouth cadets is remarkable : the spirit of the Navy seems to grip them after two terms



at Osborne. The industry of public school boys is perhaps not equally remarkable, unless an examination is imminent in the near future."

After all, it is only natural that once boys are committed to a profession, they should take their work more seriously. The Special Entry boys, once they have decided on the Navy and joined the Army Class, no doubt also become much keener on their work. I am convinced that being brought into a naval atmosphere and under naval discipline at an early age is most beneficial. It tends to engrave into their system that spirit of the Navy which to me appears so valuable. If I harp on it, it is because I attach to it tremendous importance. The case for the public school boy, or to use its official title, the "Special Entry" system, is ably set forth in a very interesting book entitled: "From Public School to Navy," edited by Lieut.-Commander W. S. Galpin, R.N., with preface by Commander Viscount Curzon, M.P.

The arguments in favour of late entry may be briefly enunciated as follows:—

1. This system produces lieutenants in just over 5 years, as against over  $8\frac{1}{2}$  years under the Dartmouth system. A saving of nearly  $3\frac{1}{2}$  years.
2. As it takes only two years to build a battleship and less to build smaller craft, the difficulties of forecasting requirements in officers, and adjusting entries accordingly, is much reduced in the case of the later entries.
3. At the age of  $13\frac{1}{2}$ , a boy does not always know his own mind, and the country is put to the expense of training and educating him when it may be found later either that he is of no use to the Service or that the Service is of no use to him. (I am here quoting verbatim from the book.)
4. Greater economy of the Special Entry method.
5. A greater variety of experience and outlook is to be found among public school boys.

Lieutenant-Commander Galpin remarks—

"As this system has been widely acknowledged in the Service to have been extraordinarily successful under war conditions, when there were of necessity many difficulties to contend with, it would appear that it should be even more so now that it can be carried out under peace conditions."

It will be noticed that these arguments do not touch the relative efficacy of the Public School and Dartmouth educations.

There is no doubt that the Special Entry Midshipmen do stand out as compared with the younger midshipmen of their own seniority. I was greatly impressed at the Battle of Jutland by the able manner in which one of these Special Entry midshipmen handled a 4-inch battery under his charge during a destroyer attack.

It must be remembered, however, that the Special Entry middies, being older and more developed, naturally impress one more, by their easier manner, readier command of language and their general confidence and demeanour, than their younger and less developed contemporaries from Dartmouth. Also, during the war, the Osborne-Dartmouth scheme was not working properly. Cadets from Dartmouth were hurried to sea before their course was completed, and at a younger age than had been contemplated when the curriculum was arranged. Comparisons made during, and shortly after, the War are therefore apt to be misleading. Coming to the question of economy, I regard our *personnel* as our first and principal asset as a sea-Power. In using the word *personnel*, I wish to include our merchant service, our fishermen, yachtsmen, and seafaring population generally. Next, perhaps, comes our existing fleet. We have other assets, all tremendously valuable, such as our bases, the quantity, quality, and variety of our tonnage afloat, our capacity to build, and so on, but the dominating factor is the personnel. The personnel must be organised, directed, and trained through our Naval Officers. We must have the best Naval Officers we can get. It is true economy then to pay a good price for the best training that can be given them.

We all know that in buying furniture, clothes, or a motor-car, sound economy is to be found in purchasing a thoroughly good article, as opposed to the cheap variety. The same applies to the training of our Naval Officers, and I don't think the question of expense should be allowed to influence the system selected. Both systems at present are giving good results, and now that the Military Branch has to supply Engine Room as well as Deck officers, it is important that both systems should be kept going.

Lieutenant-Commander Galpin tells us that at the Special Entry examination, which was held in June, 1919, there were actually 151 candidates for the 15 vacancies, and he remarks that *there is a danger*; that if the number of entries is so severely limited, many, who might otherwise have wished to enter the Navy from the public schools, may think it *not* worth while to devote the necessary time to prepare themselves for the examination. This is a point for consideration, but it seems to me that the education a boy would have received in the Army Class of a public school, especially if he has been working for an examination, would be a very useful one. Besides the chance of getting into the Army or Royal Marines, he would be well grounded for civil, marine, or electrical engineering. The high standard of the Special Entry Cadet is probably due in large measure to the competitive examination he has to pass. I remarked before, that the younger boy would be more likely to be attracted to the sea life, and it is reasonable to suppose that he would not so readily appreciate the solid advantages which are now attached to the engineering side of the Military branch. These advantages are very great, in the shape of good pay, probability of continuous employment, good shore jobs, less strenuous competition, and a more

settled life generally. These advantages, I say, are more likely to appeal to the older boy, and I think we may expect to find a greater proportion of the Special Entry Cadets volunteering for the engineering side. These engineering branch officers will, under the new system, receive a very fine education, one which should make them eligible for remunerative posts in civil life, should they by any chance leave the Service. Whether they enter under the Dartmouth or the Public School system, those of outstanding character and ability are sure to come to the front.

"Nelson" was an early boy and a direct entry, going straight to sea at the age of 12. Philip Bowes Vere Broke was trained in the Naval Academy at Portsmouth. Cochrane was a late entry and did not join his first ship till nearly 18. Rodney was a King's letter boy. Each came to the front in his day.

#### PROFESSIONAL KNOWLEDGE.

In 1903, as you all know, a radical change was made in the entry and training of Naval officers of the Military branch. The scheme then introduced, commonly referred to as the "new scheme," aimed at producing an improved type of Naval Officer who, in addition to being a seaman, a navigator, a pilot, a gunner, and a torpedoman, would also be an engineer and a Royal Marine. The average age of entry, which at that time was 15 for the "Britannia," was reduced to 12½, and the cadets were to do four years in colleges ashore, before going afloat.

Details of subsequent training were left to be worked out later, when some experience would have been gained of the progress made by these boys in the novel course of training which was being introduced into the colleges.

In 1905 a committee, under the presidency of the late Admiral Sir Archibald Douglas, was appointed to advise as to the training of the young officers on leaving the colleges, and also as to the question of specialisation in the different branches; particularly whether such specialisation should be permanent or temporary. This committee, to use a common expression, went the whole hog.

That is to say, they reported that, as regards the ordinary duties in seagoing ships and shore establishments, there was no necessity for the subdivision of Officers into Executive, Engineer, and Marine branches. One class of officer, they opined, could perform all these duties. Their view was that each officer should have a special knowledge of one branch, and all should have a general knowledge of each branch. A minority report disagreed as regards the Marines. Subsequent experience has considerably modified the views of those days, but the principle that engineer as well as deck officers should belong to the Military branch has come to stay. The present Admiralty policy is based on the principle that there is a definite distinction between those who are to be trained in the science of naval war and strategical and tactical methods of fighting, and those who deal with the design, upkeep, and maintenance of the engineering and

mechanical appliances. Executive officers will be trained in the former, engineer officers in the latter. Both belong to the Military branch. The electrical installations will be transferred from the torpedo to the engineer department, and a proportion of the Engineer branch officers will be specially trained in electrical engineering. In order to promote the closest mutual understanding and co-operation between the two, the present system of common entry and common training, until a certain stage is reached, is being continued. This stage is at present fixed at the date of leaving the seagoing training ship. Executive Midshipmen then go to seagoing ships. Midshipmen (E.) go to Keyham College for the Keyham Vernon course, which lasts four years.

Marine officers are still entered and trained separately. It is realised, I think, that to officer the Royal Marines from the Royal Navy would alter the distinctive military character of the corps, which I, for one, would be very sorry to see. In the Royal Marines we have a corps, second to none, with very fine traditions, of which they are justly proud. They are like one big family or clan. Officers and men mutually respect each other and all work together for the credit and glory of the corps. On board ship they are out to show that they can do the job better than their *confrères* of the Royal Navy, and speaking from experience, I can say that they are jolly hard to beat. They come on board with a high standard, and the competition which results from their presence on board ship is a great factor in raising the general efficiency. Do not let us alter their distinctive military character. Rather let us make use of it. Personally, I have often wondered why, when we have professional soldiers in the complement, we should make the Gunnery Lieutenant, who already has more than enough to do, responsible for the infantry training of the seamen, on a drill book which cannot fail to be out of date, in the circumstances under which it is prepared. I should like to see the Marine Officer responsible for the infantry training and musketry of the Navy (not in an executive but in an advisory capacity), and our Gunnery Instructors—so long as they are the ones who teach rifle exercises, squad drill, and musketry—as well as the officers, sent to Eastney for their infantry training. Seamen and Marines to be trained on the same drill book.

With regard to the training of Executive Midshipmen, most Naval officers have wished to abolish school on board seagoing ships, as undoubtedly it does seriously interfere with the practical training of the young officers in the sea duties of their profession. The Douglas Committee in 1905, recommended the abolition of Naval Instructors in seagoing ships. They considered, that after  $4\frac{1}{2}$  years' continuous theoretical training, cadets would have received a sufficiently good grounding to enable them to spend three years at sea as midshipmen, without further theoretical instruction than that included in their study of practical subjects, and also without forgetting what they had already learnt.

Admiralty Circular Letter No. 51, of 1st May, 1908, which regulated

the training at sea of the first batch under the new scheme, abolished the shore courses for Acting Sub-Lieutenants and directed that Midshipmen, at the end of their three years' service as such, should be examined at Portsmouth for the rank of Lieutenant in all subjects (including seamanship) without any shore courses. There was also a voluntary examination for the more advanced, which carried with it prospects of early promotion. This circular letter also abolished compulsory school. It added, however, that in the interest of individual officers, and particularly those who would specialise later, facilities would be afforded for the voluntary study of Mathematics, Science, Naval History, and Languages, which "would enhance the prospects of earlier promotion to the rank of Lieutenant for those who voluntarily pursue such studies." The Naval Instructor was also retained in seagoing ships carrying midshipmen. In 1912, the Custance Committee was appointed. This committee found that, among other causes, this prospect of earlier promotion if they did well in the voluntary subjects, together with the character of the syllabuses for the examinations, had the effect of diverting the attention of Midshipmen from their practical work.

Probably, the fact of there being no preliminary shore courses, also had this effect. The shadow of the examinations affected not only the midshipmen, but the captains too. The problem of passing the examinations weighed more heavily on their minds than the importance of learning their practical work. The Custance Committee recommended that all the examinations for the rank of Lieutenant should be held afloat. Their idea was that both the central examination and the shore courses tend to impair the sea training by setting up a false ideal. They recognised that the standards might vary, but this would be to some extent neutralised by the circumstance that each candidate would be examined by five different boards. This committee also recommended the abolition of the Naval Instructor in seagoing ships. The Admiralty decisions were embodied in Circular Letter No. 16 of 18th April, 1913. This shortened the service, as midshipman, to two years and four months, at the end of which, after passing afloat in Seamanship and Navigation, the young officer became an acting Sub-Lieutenant. The Navigation examination was preliminary only. After a further three months at sea, the officer underwent a preliminary examination afloat in Gunnery and Torpedo, followed by a final examination in engineering at Portsmouth.

Then followed short shore courses at Portsmouth, in Gunnery, Torpedo, and Navigation, with a final examination after each. One or more naval instructors would be available afloat, in each squadron, to move from ship to ship as desired.

Under the existing regulations, school is re-introduced under the term "theoretical instruction." It is laid down that theoretical instruction will aim at consolidating the principles learned at Dartmouth, and practising their application to technical problems. It will be given by the Naval Instructor (now called the Instructor Officer) who



is accordingly re-introduced into seagoing ships. The latter officer now goes through technical courses, including such subjects as wireless, ballistics, gun construction, etc.; so that he is able to relieve the specialist officers of the theoretical work. For this he is naturally better fitted, by reason of his training and experience. Instruction is also given in what are termed the humanities.

My personal view is, that though school afloat undoubtedly hampers practical training, it is unavoidable if our officers are to be properly educated. You cannot expect a youngster of that age to pass 2½ years without school and yet keep up the very necessary mathematical and scientific knowledge he has acquired at Dartmouth. The shore courses are most necessary too, and I am very glad they have been brought back again.

The Engineering training of executive midshipmen is now limited to providing knowledge of—

- (a) The conditions obtaining in the machinery departments.
- (b) The organisation of the E.R. department.
- (c) The limitations to which machinery is subject.

So, after much consideration, experience and reconsideration, we get back to the Executive Naval Officer who is a seaman, a navigator, a pilot, a gunner, and a torpedoman. By the time he is a Post Captain he should, in my opinion, be something of a Strategist and a Tactician as well.

The Midshipmen (E.) on leaving the seagoing training ship, go straight to the R.N.E. College at Keyham, for the Keyham—"Vernon" course. The course lasts four years; eleven terms at Keyham and one in the "Vernon" at Portsmouth. It comprises manual practice in the Marine Engineering and Electrical Workshops and in the Drawing Office, together with a course of lectures on Marine and Electrical Engineering. The training also includes the study of technical subjects in class rooms and laboratories, and the practical working and testing of engines and electrical machinery. In addition to the purely engineering instruction, these officers are taught the duties of a Divisional Officer, and are given practice in exercising command. A certain amount of instruction is given in modern languages, naval history, and elementary economics. They will advance in rank correspondingly with contemporary Executive Officers (*see* diagram). Accelerated promotion is awarded for good results in the examinations; also, loss of time with liability to discharge, is incurred by failure to reach the required standard.

A limited number are selected, on the results of the Keyham—"Vernon" course, for an advanced course in either Marine Engineering or Electrical Engineering. Those selected as soon as they are qualified by seniority are promoted to the confirmed rank of Lieutenant. This course follows immediately after the Keyham—"Vernon" course, and takes place at Greenwich.

Those who qualify in the advanced marine engineering course are eligible for the higher posts at the Admiralty and in the Dockyards.



Those who qualify for the advanced course in electrical engineering are similarly eligible for the higher posts in electrical engineering at the Admiralty and in the Dockyards.

Officers not selected for the advanced course, go to sea and are required to obtain an Engine-Room Watchkeeping Certificate, and a recommendation from their Commanding Officer, before being confirmed as Lieutenant. They are, however, given the acting rank, if due for promotion before having had an opportunity to obtain the certificate and recommendation.

A great advantage of the present system is that the training received by officers of the E. Branch compares most favourably both in length and curriculum with any of the recognised technical courses obtaining in the civil community. The Engineer officers at the Admiralty and in our Dockyards are fully qualified and equipped to hold their own with those in the big shipbuilding yards of the country.

*Strategy*, tactics and Staff work are taught to Executive officers at Greenwich in the War and Staff courses, but I think Senior Officers afloat can do a great deal in the direction of making officers think strategically, and in encouraging the voluntary study of the fleets and bases of Foreign Powers. This they can do by occasionally setting strategical problems, and calling for appreciations from the different ships.

Strategical problems are very interesting things to work out. It is wonderful how keen officers get about them, and how it makes them study confidential books which otherwise are never looked at. Anything in this direction which induces competition is sure to be most attractive and most instructive, besides promoting discussion. We want something on the lines of staff rides as practised in the Army:—something which will induce officers to take up the study of this side of their profession, and which will make it interesting to them.

Tactics are already taught, and are constantly exercised in the fleets. A knowledge of Naval Tactics can be greatly improved by War games, which should also be encouraged. The Vice-Admiral under whose command I had the privilege of serving in the Grand Fleet, frequently set the Captains small strategical problems which usually worked up to an engagement on the tactical board, and very much did we enjoy them.

#### GENERAL KNOWLEDGE.

We all know that no Naval Officer ever completes his Naval education.

If he is a keen and ambitious officer he is always studying it, up to the date of his retirement, and even after that.

Alongside his professional study, he should be acquiring general knowledge as well. The complete Naval Officer should be able to hold his own in conversation, in any society of men. He should have a knowledge of what is happening in the world. He should understand human

nature, how it operates and how to operate it. In his early training, up to his qualifying for the rank of Lieutenant, he has little time for study of other than professional subjects, except as a recreation in his leisure hours. The claims for technical and quasi-technical subjects are so large that other studies must to a great extent be neglected. Nelson spoke of French and dancing as two things which every Naval Officer should know. Most of them do nowadays. It is inevitable that a Naval Officer wishing to have a good all-round knowledge must to a large extent educate himself. Senior Officers afloat can help by encouraging and organising debates. Debating gives a command of language. It also promotes study and makes study interesting. It makes people read the encyclopedia. Without a knowledge of the subject, it is impossible to hold your own in debate.

Naval and Military history must, of course, be studied. Besides these, Naval Officers should, in my opinion, study politics, both home and foreign.

Strategical situations are invariably affected by the political conditions of the day. Military considerations are continually interfered with and even subordinated to political forces. A knowledge of these forces and an understanding of the effects they produce, will assist in reaching a correct appreciation of most strategical problems. Finally, Naval Officers should have friends in the other fighting forces; should keep in touch with them and learn their language, outlook and ideals, so that when the Services come to operate together, there may be complete and harmonious comradeship and co-operation.

#### DISCUSSION.

VICE-ADMIRAL SIR WILLIAM GOODENOUGH, K.C.B., M.V.O.: I am sure we have all listened with very great pleasure to the lecture on this most interesting and important subject.

I should like, in the first place, to refer to one matter not actually connected with the lecture, but which is of great importance, and that is the number of candidates who are at present presenting themselves for entry into the Navy. It is no good disguising from ourselves any longer the fact that the parents and guardians of the youth of this country are not realising their responsibilities to the Navy in the very least, and that the number of candidates which we are getting for the Navy is very small. For instance, recently, for 55 vacancies there were 71 candidates. I happened to mention this matter the other day to a woman with a number of sons. I asked her which of her sons was going into the Navy, and she replied: "There is no future for our sons in the Navy." I could not help retorting: "There is no future for this country without the Navy; that is quite certain." If we cannot get the requisite number of candidates for the Navy from the class we wish to get it from, we shall have to go to other places, and open the channel of entry into the Navy considerably wider than it is at present.

There are one or two points with regard to the lecture, which I should like to mention. I do not think the lecturer was quite accurate in his description of what was desired or expected when the new scheme was first originated, in regard to the marvellous combination—of which he spoke, as I thought, with scant approval.

What was intended was that there should be a similar entry, and a similar grounding for all officers going into the Navy. It was not at all meant that everybody was to be crammed with an extraordinary amount of knowledge until he "bust." That was not in the least the idea.

There is no doubt that what the lecturer has said with regard to what is required of a naval officer is absolutely true, and, in my view, there is one thing which is essential to enable a naval officer to obtain that requirement; namely, that in his early years his training and education should be such as to allow his mind to become receptive, and not made so that when it is required to make an impression on it, you have to hit it with a hammer. The danger of too rigid a training in professional and other subjects in early youth is, that it may form men's minds into a mould. It is a very good mould, but they are all of the same mould, if one does not give room for that expansion of mind which is so very necessary. A great many lectures have been given in this theatre on this most interesting subject, but there was one particular lecture which was given in the year 1873, which might have been delivered, in its main principles—not, of course, in its details—this afternoon; and if it had been delivered this afternoon, I am sure its main principles would have been listened to with great interest. It may be that it has a sentimental interest to me particularly, for it was given by my father, but I think it would be well worth glancing over by those who are really interested in this subject. It is contained in a book which is in the library. That lecturer put forward the necessity of doing something which would in later years allow all naval officers to have their minds receptive and expansive. He said then that the impression was abroad, rightly or wrongly—(it may be abroad still; I do not know)—that all that was necessary to make a good naval officer was to catch him young and cram him with professional detail from childhood to youthhood, from youthhood to middle age, and from middle age to old age, and then to cast him aside on the country's gratitude, not even expecting him to have sufficient knowledge to take a part in the conduct of the affairs of the Service of which he may have been a great ornament. I do not know whether that impression is abroad to-day, but if it is, it is a very bad thing. It is highly necessary, in my opinion, that in the training of our young men of to-day, everything should be done to make their minds both receptive and expansive.

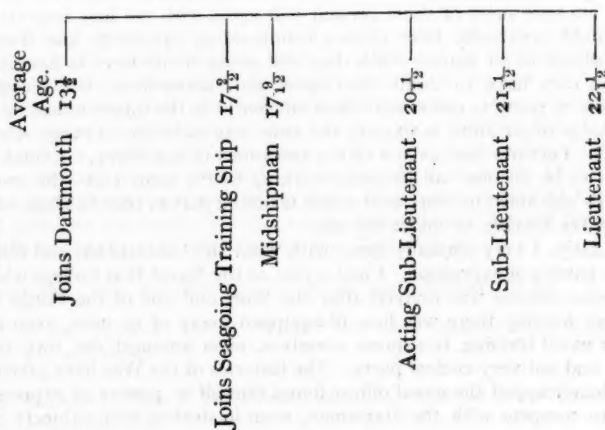
With regard to the question of the age of entry, as the lecturer has said, we have to make our age of entry coincide with the breaks in the school education; but I for one do not think we should be too much at the dictation of the schoolmaster. What does the schoolmaster do? In former years, the age that young men went to a public school was very much earlier. Gradually the schoolmaster persuaded the parents to leave the boys a little longer at the private schools. Then the public schoolmasters persuaded the parents to leave them a little longer at the public schools, and not to send them on to the universities so soon. Schoolmasters are very good instruments, of course, but, after all, if we have been properly trained, and if we have devoted sufficient and proper thought to our own profession, we do know what is wanted—or at any rate we think we do, which is almost the same thing. Therefore I hope we shall not allow ourselves to be dictated to by that most august and forcible body of schoolmasters.

CAPTAIN E. ALTHAM, C.B.: I should like to say a few words about a subject which is becoming more and more important to the Navy, namely, the air training of the Navy. I know there are a good many people who still hold the view that in talking about the "air training of the Navy," one might just as well talk about the "sea training of the Army"; but I think most of us do not agree with that sentiment. The lecturer has recalled to us the days when those who fought the

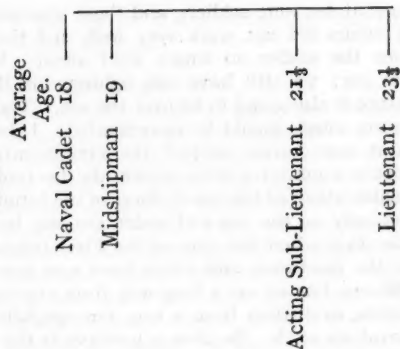
# MILITARY BRANCH OFFICERS.

*Diagram Showing Average Age and Rank.*

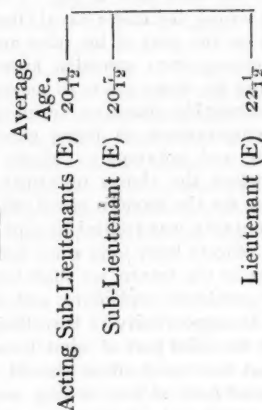
## EXECUTIVE BRANCH.



## SPECIAL ENTRIES.



## ENGINEER BRANCH.



guns at sea were soldiers, and those who sailed the ships were sailors. That state of affairs did not work very well, and the sailor learnt how to fight his guns; then the soldier no longer went afloat. We have long had sea fighting under the sea; we still have sea fighting on the sea; but the sea fighting of the future is also going to be over the sea. Training in all these forms of sea fighting, to my mind, should be co-ordinated. I do not want to go too deeply into that most controversial subject, the administrative control of the Services, as perhaps that is a matter a little outside the Lecture, but I do feel most strongly that the qualifications of the naval officer of the future will be incomplete unless he is trained not only on the sea and under the sea, but also over the sea. We have got to the stage where the eyes of the Fleet (which used to be up in the control top, or at the masthead, and which have now gone into the air) are provided by Naval Officers, but we are a long way from arriving at a system whereby the Navy as a whole, as distinct from a very few specialists, are given any sort of grounding in naval air work. So close a preserve is the air, that naval Observers are not even allowed to learn how to fly. I think from a purely humanitarian point of view that is wrong, because a naval Observer is taking a double risk; he takes the risk of failure on the part of his pilot and he also takes the risk of casualty to himself.

Turning from specialist knowledge to the general air training of the Navy, we clung for many years to masts and yards and sail drill, because those afforded such admirable character training. The Lecturer has alluded both to character and temperament as being exceedingly important factors in a naval officer's training and upbringing. Masts and yards and sail drill, however, had to give way before the claims of utility; but I cannot conceive any better character training for the modern naval officer than a knowledge of flying. In the old days, our mentality was trained to cope with movements on the surface of, say, 10 knots. Naval officers have long since had to think in speeds of 50 knots; but in the sea warfare of the future, we shall have to have naval officers who can think in speeds up to 200 knots and more, and how are they going to do that if they are never given an opportunity of travelling faster than they can go in a destroyer? It is a very essential part of what I may call the psychology of the Navy. It seems to me that the naval officer should take very kindly to flying, because it is only an advanced form of boat sailing, and every naval officer is brought up to be at least an adequate and, we hope, an enthusiastic boat sailer.

I am sure most of those present will agree with me how important it is that we should eventually have officers commanding squadrons and fleets who have a knowledge of air units—which they will undoubtedly have to handle, in the same way as they have to handle destroyers and submarines; but I cannot see how an officer is going to command a fleet efficiently in the future unless he has personal knowledge of air units, in exactly the same way as he has of every other naval unit.

The Lecturer has spoken of the traditions of the Navy. I think if the Navy is still to be all one—all its units working to the same end—the same traditions must be engrained in every unit which is taking part in that fighting, whether in the air, on the surface, or under the sea.

Lastly, I very cordially agree with what the Lecturer has said about the value of the powers of expression. I had a year at the Naval War College when the course for senior officers was revived after the War, and one of the things which struck us very forcibly there was how ill-equipped many of us were, even at that stage in our naval training, to express ourselves, even amongst our own comparatively small and not very critical party. The histories of the War have given examples of how handicapped the naval officer found himself in powers of expression when he had to compete with the Statesman, even in dealing with subjects in connection

with his own Service. For the good of the Service it is essential that that part of a naval officer's training should not be lost sight of.

GROUP-CAPTAIN P. B. JOUBERT DE LA FERTÉ, C.M.G., C.V.O., R.A.F. : Captain Altham has made one statement with which I do not agree, and I should like to ask him where he got the information on which he based it. As the individual responsible for obtaining naval Observers for training in the Air Force and for endeavouring to obtain seconded naval officers to come to learn to fly, I may possibly be able to correct a misapprehension on Captain Altham's part. The facts, as far as the Air Force is concerned, are these. There are two systems whereby a naval officer may obtain that education in air matters which the Air Force looks upon as essential, and to which Captain Altham referred. First of all, a naval officer can come to us as a pilot for a period of four years. He gets all the training he requires from the naval point of view, in order to become one of those air strategists which we hope to see among the higher commanders of the Navy in the future. I do not suppose for one moment that Captain Altham considers that present senior naval officers should learn to fly; their age (I speak with all due deference) would make it difficult for them, and it would not be everybody with 20 years' service behind him who would like to become a flying officer. Secondly, there is the naval Observer who is not seconded, but attached. He, like his seconded brother, remains in all respects a naval officer, and is taught the other part of naval air training, namely, observation. He does his course, and, as Captain Altham quite rightly says, he is one of the eyes of the Fleet. Any Observer, if he wishes to transfer to the pilot branch, can become seconded to the Air Force for four years, for the purpose of learning to fly. Those are the facts of the case. Therefore I cannot understand how Captain Altham can say that no naval officer is allowed to fly.

CAPTAIN ALTHAM : May I be allowed to reply to that? Captain Joubert has asked me my source of information for my statement. It was a naval Observer who had just qualified, and who was not a little indignant at not being allowed to fly. I should like to ask whether these new naval pilots who are going to be qualified to fly, actually exist, or whether it has only been put forward as a scheme, and whether, in fact, there have been no takers?

GROUP-CAPTAIN JOUBERT DE LA FERTÉ : A scheme has been put forward, and any failure which there has been, must be attributed to the fact that naval officers do not wish to be seconded. We greatly regret that, because we get Army officers coming forward under identically the same scheme. The principle of it is to try to get officers of the other Services to know our difficulties and be able to meet us on common ground, and we greatly regret that naval officers have not hitherto come forward in any numbers. I do maintain, however, that Captain Altham's statement was not quite accurate, and I merely rose to correct it. From our point of view, we are ready to take naval officers to-morrow for training as pilots. It is not correct to say that they are not allowed to fly.

THE CHAIRMAN : One does not want to be four years learning to fly.

GROUP-CAPTAIN JOUBERT DE LA FERTÉ : No—one year to learn to fly, and three years to get experience.

CAPTAIN ALTHAM : Then I am correct in saying that no naval officers are, in fact, being taught to fly?



GROUP-CAPTAIN JOUBERT DE LA FERTÉ: I quite agree, but you said that they are not allowed to learn to fly, which is quite a different thing.

THE CHAIRMAN: Before I ask Admiral Bernard to reply, I should like to support what Captain Altham has said with regard to naval officers learning to express themselves correctly. I think a great many people will agree with me in regretting very much that the Navy has again left Cambridge. I thought it was a distinct advantage to the Navy when Naval officers were sent to Cambridge. Of course it was a post-War arrangement; to assist them to pick up a little extra education which, owing to the War, they had not up to that time been able to enjoy. I had great hopes that, the Navy having once been established at Cambridge, Cambridge would continue to be open to naval officers for at least two or three terms, to enable them to look at the world from a different point of view, and be able to debate with, and talk to, their younger contemporaries, and get to know their points of view.

With regard to air training, I was going to make remarks more or less to the same effect as those which Captain Altham has made. I do think it is the greatest pity in the world that the naval Observer cannot also become a pilot if he wants to, without spending four years in the Air Force. We shall want any number of Naval officers in the next war, to work in the Air with our surface ships—not airmen or soldiers who can fly, but actually naval officers to work in the air. At the end of the war, I had under my command four air stations, and we did suffer at times from having pilots who had no idea of naval routine, or what they were to look out for from a naval point of view. It is only by constant living amongst ships and naval officers and seamen generally, that one can get the sort of mentality which enables one to work in the air, with one's colleagues in ships on the surface. Surface ships will be wanted for years to come to carry cargo and we must have battleships and submarines to guard them, and there must be an Air Force to work with the Navy. In my humble opinion, the only way to get maximum efficiency, is to have naval men in the air, to work along with naval men in the ships.

VICE-ADMIRAL BERNARD, in reply, said: I understood Admiral Goodenough to suggest that we do not get a big enough supply of candidates at present for the Navy, either for Dartmouth or for the special entry system. Just after a big war I think it is only natural that candidates for the fighting forces should not be coming forward in the numbers they did before a war. The glamour of fighting has died down to a certain extent, and during the last war, of course, all our citizens came out and fought. I do not think that in the future, however, we need fear that there will be a shortage of candidates for the Navy. At present I understand we are getting quite a good enough supply. If necessary, to enlarge the supply, we can always take more from the lower deck. I think it is of the very greatest importance that the present type of naval officer should be encouraged. We have our traditions: we have been brought up to worship loyalty and efficiency, and I think it would be a great pity if naval officers who are entered under present conditions did not dominate any who may come in from other channels to ensure that the naval spirit will not be affected in any way by the entry of large numbers from other sources. The same spirit is found on the lower deck. I remember when afloat during the War hearing a petty officer say to a young ordinary seaman: "What you have got to learn, my boy, is that there ain't no such thing as 'can't' in the Royal Navy." That is the spirit we want to keep. We have it amongst the present men and officers, and we must hang on to it for all we are worth.

With regard to the 1903 scheme, I accept Admiral Goodenough's correction, but there is no doubt that the Douglas Committee did in 1905 contemplate and recommend one class of officer to perform all the duties I enumerated. Each was to have a special knowledge of one subject and all a general knowledge of each subject. I am very glad that the requirements I have put forward are approved by an officer of the distinction of Admiral Goodenough, who has had much experience in naval training.

With regard to the danger of naval officers all getting into the same mould: in the old days when ships kept to sea a great deal, when we did not see much of the shore, and when we had no wireless, there was a danger of naval officers getting into a groove; but now-a-days, when we spend so much time in harbour, see so much of the sister Services, and come in contact with the civil community generally, I think that danger is not so great and is passing away.

With regard to not allowing ourselves to be dictated to by the headmasters, I do not see how we in the Navy can very well claim to have any right to interfere with the educational system of the country. I think we have to accept the educational system ashore as it exists, and get the best we can from it in choosing our material for moulding into naval officers.

I thoroughly agree with all that Captain Altham has said. The question as to whether or not naval officers can at present be trained in flying seems to me a small point. It is the principle which is the important thing. It seems to me we might just as well have our guns manned by the Royal Artillery as our aircraft by men from another Service. If the principle of the Air Ministry is to be accepted, we might as well claim in the Navy to run all the water-craft of the Air Service. We might say to them: "You have no business on the sea. We will run your water-craft for you." Again, the Army might tell us that we have no business to have Royal Marines. An old and great Service like the Navy, with its great traditions, cannot, so long as it retains its virility, accept the principle of having part of its work done for it by another Service. We have got to work in the air, as well as the other Services. The other Services have their job to do, whether it is on shore or in the air; let us be allowed to do our job and be responsible for it. How can we be responsible for our job if we have other people put in to do part of it for us? The naval airman of the future must be able to speak the naval language, must be able to think in naval language, and must understand naval methods and ideals. The Admiral in command must know the sort of man he is dealing with. In future naval warfare, the airman will be as important as the gunner is to-day. We shall have to use the air for reconnaissance purposes and for fighting. My view of the naval battle of the future is, that it will be begun by the aircraft on both sides, and that when they have had their battle, the floating ships will come in. At any rate, for many years to come, the aircraft which are going to fight on the ocean, will have to be carried in ships. Dual control has always been a failure, and I cannot think that the country will be content to leave the condition of things as it is at present. I think in time, as we explain what we want, the country is bound to realise that the Navy must run its own air service as well as its other services.

THE CHAIRMAN: I think you will join with me in according a very hearty vote of thanks to Admiral Bernard for his most excellent lecture. I told you that Admiral Bernard always displayed great thoroughness in preparing anything which he had to prepare, and you will all agree that he has done that in this lecture. He has given us a good deal of historical information and also modern information.

I thank him very much indeed for his interesting lecture, and I also wish to thank the speakers for the part they have taken in the discussion.

The vote of thanks was carried with acclamation.

ADMIRAL S. H. BRUCE: It falls to my duty to ask you to join with me in according a hearty vote of thanks to our Chairman for so ably presiding this afternoon.

The vote of thanks was carried with acclamation.

THE CHAIRMAN: Thank you very much.

The meeting then terminated.



## THE HISTORICAL PERSPECTIVE OF JUTLAND.

By JOHN LEIGHTON.

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THE four closing chapters of the official history of the naval operations deal with the battle of Jutland. The late Sir Julian Corbett is, therefore, the first author who has succeeded in presenting the public with an account of the battle based upon complete materials; but the significance of his book does not consist in this alone. To grasp its import one has to make a brief retrospect into the history of the past seven years. It is only by reviewing previous failures to prepare an authentic and complete account of the battle that one can estimate the service which the late historian has performed for the nation.

When the censorship was withdrawn, and those who had taken part in the War or had watched its progress as privileged observers were free to write as they wished, the public knew nothing of the battle of Jutland, except what they had been told in the official *communiqués*. The impression which was left by these necessarily scrappy and confused reports was, that our battle cruiser fleet had suffered serious loss in an unequal struggle with enormously superior forces; that with the arrival of the main fleet, Admiral Scheer had retired to harbour without order or cohesion; and that, though the Germans did not care to admit it, we had inflicted losses on them as great as those we had suffered.

The Admiralty were thus quite honestly and through no fault of their own, committed to three serious mis-statements; and out of them there arose another equally serious misconception. It was assumed that the German fleet, shaken and demoralised by the results of the battle, had never again left its harbours for any considerable enterprise. This was quite untrue. So long as Admiral Scheer could use his submarine fleet in conjunction with his battle squadrons, he felt sufficiently secure to make serious sorties into the North Sea; and he actually did so on two occasions. It was unrestricted submarine war, not Jutland, which held the German fleet in harbour during 1917 and 1918. The outcome of the Admiralty's official reports, and of the silence which they were compelled to observe on other matters, was, therefore, that in 1918, the public were quite misinformed about the results or the real significance of the battle. During the months following the Armistice a considerable volume of Jutland literature was published in English, French and German. The most important contributions were undoubtedly the books written by Lord Jellicoe and Admiral Scheer; but these essays, for they were no more, only showed how difficult it would be to prepare a really complete account of what occurred. From the gaps and other deficiencies in the honest and careful accounts of the two

commanders in chief, it was clear that an accurate history of the battle would require laborious preparation. Before it could be written at least four things would be necessary. First, it was evident that nothing could be done without a complete set of plans upon which the movement of every ship engaged should be laid down as accurately as possible. Secondly, every signal exchanged would have to be tabulated, with its time of origin, and, if possible, of receipt. Thirdly, the despatches of all the officers engaged would have to be published without the slightest alteration or erasure, and, fourthly, the battle orders giving the tactical rules by which each fleet was working would have to be set out in detail. Nor should it be forgotten that this formidable mass of material would have to be collected for the German as well as for the English side. On these foundations a complete description of the battle could be erected, but on no other.

Still, much might be done by preparing an absolutely authentic account of the British movements, leaving the German side of the question to be dealt with on the basis of certain very important captured documents, which showed the manœuvres of the squadrons engaged.

This the Admiralty at once set themselves to do, feeling, probably, that they had never wished to mislead the public, and were only too willing to bring full light to bear upon the whole matter. Lord Rosslyn Wemyss, the first sea lord, therefore, appointed a committee, which was presided over by an officer of the highest character and professional attainments, to investigate every circumstance of the action and issue a report of the whole affair. That report was never published. Whilst it was being prepared, the board which had assembled the committee retired, and the new board could not pass the report which was laid before them for final approval. The actual points in dispute were never divulged. The Government now intervened, and, in answer to a considerable clamour in Parliament and the press, published a collection of documents known as "The Jutland Papers." They contained only a portion of the materials necessary for preparing a critical account. The despatches of all the officers engaged, the gunnery tables, and the signals exchanged were carefully and honestly inserted; but the whole collection lacked the records of the courses steered, and, what was more important, the battle orders describing the dominant tactical ideas in each fleet were omitted. These papers were published in 1920. There the matter rested until Sir Julian Corbett's third volume appeared; and it is because this great historian has dealt with every relevant point; because he has examined, with impartial serenity, every question in dispute; because he has never feared to speak firmly and decisively where his knowledge has permitted him to do so; and because he has cleared our ignorance and confusion by a narrative of surpassing brilliance, that he will rank amongst those who "have deserved well of the republic" by their services to arms or letters.

An account so detailed might be discussed from many aspects; but it will doubtless arouse the greatest interest by the extent to which it



answers the questions which really inspired the popular outcry when the Jutland papers were published. Early criticism had focussed itself on certain highly technical points: Lord Jellicoe's deployment, and his method of avoiding torpedo attack. To the public these points were really items of a very much more important problem: why had we suffered such losses? Were we really as victorious as we claimed to be? Was there anything to conceal? Did the consoling generalities about "emphasised command of the sea," with which the press had glutted its readers, really represent the results of the battle? In so far as the tactical problems, which were discussed with such insistency, really helped to solve these urgent matters, the reading public were willing to follow them; but, when it became evident that they were being examined as things in themselves, or were being made the introductory matter to very personal attacks upon the Commander-in-chief, ordinary persons lost their interest.

In all this, Sir Julian Corbett has chosen to let the facts speak for themselves; it is, therefore, necessary to muster the relevant points and explain their inference. The first and most important question is undoubtedly this: For seven years we have claimed a victory; were we justified? We might substantiate our claim on several grounds. If the results of the battle really gave us a control of the ocean highways which we did not possess before, then, undoubtedly, it was a victory. Similarly, if Admiral Scheer left harbour intending to meet our fleet and fight an action to a decisive issue, then we were certainly victorious; for in this case his report to the Emperor is an admission of failure.<sup>1</sup> Lastly, if we thwarted Admiral Scheer in the achievement of any large strategical purpose, we were certainly the victorious party.

On the first head it is clear that the battle gave us nothing that we did not possess before. On the outer oceans, we were as free to transport troops as we had been since 1914, but certainly not more so. Jutland did not give us greater liberty to carry reinforcements to Salonika, or Egypt, or Mesopotamia: in each case we were able to do what we always had done; but no more. With regard to the North Sea, however, the matter is more complicated. Here we had always exercised a very limited control. We had never "contained" the German fleet in any true sense of the word. They had left harbour when they wished; and they had bombarded Yarmouth and Lowestoft only a few weeks before the battle of Jutland. The relative freedom which they enjoyed in this restricted theatre is illustrated by the danger of armed landings, against which we carefully provided so long as the War lasted. On the other hand, we had perfected an extraordinary system of intelligence, which more than compensated for our inability to contain the German fleet. By intercepting every signal made in the German bight, and by decyphering

<sup>1</sup> "Jutland Papers," page 600. " . . . should the future operations take a favourable course, it will no doubt be possible to inflict considerable damage on the enemy; but there can be no doubt that even the most favourable issue of a battle on the high seas will not compel England to make peace in this war."



the codes in which they were sent, we kept an accurate daily record of all that was going on in the German harbours. No fleet movement was undetected; in many cases we knew the courses upon which the German squadrons were steering, and the rendezvous for which they were making. It was by virtue of this amazingly complete information that we countered every sortie of the German fleet, and that we did actually bring Admiral Scheer to action on 31st May. These are the exact facts about our control of the German fleet, and it is evident that here, also, Jutland had no effect on the position.

Before we can examine the next contention, we must be quite clear what it was that Admiral Scheer intended to do when he left harbour on 31st May. He had two alternative plans ready. The first was to move rapidly across the North Sea and bombard Sunderland: the second was to move his whole force into the Skagerrak, and, having made an imposing demonstration to neutral shipping, and captured a few of them as prizes, to return to harbour. It was the second plan that he adopted, and we, knowing his intentions, were able to bring him to action whilst the project was going forward. Can it be said that such a scheme of operations challenged our command of the sea, or even tested our limited control of the North Sea theatre? Hardly; a demonstration, which has no real military object is nothing more than an admission of the *status quo*; and had the plan which we interrupted been completed without interference, our command of the sea would not, on that account, have been put in question. We possessed it before the battle by virtue of our numerical superiority, and we possessed it afterwards for the same reason. By none of these general tests can we make good our claims; but another very relevant point remains to be considered. It will be argued by those who, from vanity or conviction, still call Jutland a British victory, that the results of the action was to drive Admiral Scheer precipitately into his harbours, and that a withdrawal of the kind implies that he admitted himself defeated. The contention would have more force if there was a scrap of evidence that Admiral Scheer ever meant to act differently. As far as one can judge, he thought it would be the merest folly to engage a fleet which outnumbered him so hopelessly; and, though he was always hoping to cut off and overwhelm a detachment of our main forces, he never intended to play into our hands by engaging them after they had concentrated. He did, however, realise that his plans might at any moment miscarry; that he might be faced by the overwhelming numerical superiority, against which his fleet would be powerless; and if ever this desperate contingency took place, he had a tactical plan for meeting it. He was, in fact, faced with the complicated problem of a naval commander, who, in common prudence, cannot bring on an action; but who is determined that he will not remain inactive on that account alone. Two definite, logically conceived, tactical schemes, British and German, were thus tried and put to an utterly inconclusive test between 6.30 and 8 p.m. on 31st May; what were they? We cannot do better than examine Sir Julian Corbett's analysis.

Admiral Jellicoe seems to have considered that he had a decisive superiority over his opponents in one arm only—artillery. In torpedo craft he could not be sure of being more than their equal. He felt, therefore, that his best chance of a speedy victory was to strike as rapidly and violently as he could with his concentrated broadsides, hoping that, under a cataract of shell, the German line would lose its cohesion and be defeated in detail. Unfortunately, the desiderata for a victory gained by this means were rather complicated. Admiral Jellicoe was persuaded that he could never bring his superior broadsides to bear unless he could place his enormous line of battleships on a course roughly parallel to the enemy's; and out of torpedo range. Could he manoeuvre his fleet into this position, the result would be, that, as twenty-four British dreadnoughts would be engaging eighteen German vessels of the same class, then, inevitably eight of these latter would be engaged by double their number of British ships. As the artillery of our individual ships was heavier than the enemy's, the concentration would be so overwhelming that the German fleet would never resist it. This tactical conception involved an important corollary. Our battle line must develop this overwhelming fire without disturbance. It was this problem which brought out Lord Jellicoe's moral courage and tactical insight. His line of reasoning was as follows: "Unable to interfere seriously with my concentration of fire by their own lower calibred guns, the enemy will undoubtedly strive to throw it out by furious destroyer onslaughts. In order to thwart them I shall assign a purely defensive rôle to my destroyers; their duty shall be to beat off attacks on any part of my line, and so enable me to preserve my battle line." There was another difficulty to be faced. Supposing that a severe torpedo attack were successfully launched; then, as the deployed British line was some six miles long, it would inevitably fall upon some section of it, as it could not be spread over its whole length. In this contingency, should the leader of the division against which the attack was directed manoeuvre independently to clear himself; or should the extricating movement be undertaken by the whole fleet? The second solution was chosen. Independent movements of divisions, if admitted, would break down the whole tactical plan; the continuity and cohesion of our deployed line would be interrupted, and the German battleships would no longer be confronted with the concentrated, overwhelming, fire of the fleet. The last and most serious implication of Lord Jellicoe's central idea was, therefore, that the battle fleet as a whole, and not a mere part of it, should move away from a torpedo attack if it matured. To make his tactical scheme consistent in every detail, Lord Jellicoe was compelled to depart very considerably from the fleet orders of his predecessors. The defensive rôle given to the British destroyers was new; and the method of avoiding a torpedo attack by moving the whole battle fleet was certainly much criticised. It was argued that what held good for squadrons of five to ten ships was not necessarily the best for a battle fleet of over twenty. Right or wrong, it is surely to Lord Jellicoe's

honour that he faced every implication of his dominant tactical scheme with the serenity and singlemindedness of a doctor of logic.

When we seek to examine the tactics of the German Admiral, we are at once confronted with a serious gap in our information. Sir Julian Corbett has mustered the relevant facts, as far as they are known; but it is clear that his information was scanty. He had Lord Jellicoe's battle orders before him; but Admiral Scheer's could only be guessed. Still, what he has made known, throws a great deal of light on the matter. Admiral Scheer was evidently quite aware that the British battle fleet would endeavour to strike with their artillery alone. To counter the blow, he had practised his own fleet in turning away from the opposing line, and in executing concentrated attacks by artillery fire and torpedoes upon single parts of it. The turn away, or "*Kehrtwendung*" requires no explanation: it was a matter of seamanship; and to make sure that it should always be successfully performed, the distance between the battleships in the German line was considerably greater than it was in ours. The German method of bringing off a concentrated attack is veiled in mystery. We know that their battle signals provided for a manoeuvre called "*Stoss*" (shock or thrust), and we know that Admiral Scheer very often uses the term. What did it imply? Was it analogous to some fleet movement which we ourselves had practised, or was it a special method of attack designed for a numerically inferior fleet: a rapid closing in of the range, followed by outbursts of rapid fire, and a hasty retirement behind clouds of smoke? Until the German naval historians enlighten us we shall remain in ignorance.

These were, in their broadest outlines, the two systems which awaited their test at about 6 p.m. on 31st May, 1916. It is very important to add that Lord Jellicoe's scheme possessed one overwhelming advantage, which was this: sooner or later, by virtue of his numerical weakness, Admiral Scheer must inevitably set a course for Heligoland, delay it as he would by *Kehrtwendungen*, partial retirements, and tactical movements; and it was on this inevitable circumstance that Lord Jellicoe apparently based his confidence in being able to force a victory. When that moment came, it would find the British fleet deployed in a single line; steering the same course as the Germans; and imposing battle on its own terms. Critics of the Commander-in-chief have maintained that his plan of a fleet action depended upon conditions so difficult to obtain that it was intrinsically worthless. In point of fact, it was built up on an assumption which must, sooner or later, come true, and therein consists its chief merit. Two contingencies might snatch from Admiral Jellicoe the advantage which otherwise must fall into his hands by sheer force of necessity (i) if his destroyers ran prematurely short of fuel, he would be compelled to retire and leave the German fleet alone, and (ii) if Admiral Scheer could delay setting his course for Heligoland until after nightfall, then the whole plan of imposing battle upon approximately parallel courses would fall to the ground. This second contingency did arise, and it was that which made the action indecisive.

This point requires a brief review of the facts if it is to be thoroughly understood. Admiral Scheer got contact with our battle squadrons whilst they were still in the act of deployment. As his position was very bad, and our fire was steadily growing in intensity and destructive effect, he at once turned away; and had broken off from us completely by about a quarter to seven. As soon as he was clear, the inevitable necessity of making for home began to press upon him. Whether Admiral Scheer's claim to have turned back in order to strike a blow at the centre of our line is strictly honest, or whether, as Sir Julian Corbett thinks, his explanation is a mere excuse for a tactical blunder, the fact remains that his first serious battle movement was in the direction of his base. As we know, he was again completely thwarted, and compelled to carry out another westerly retirement which lasted until about 7.35 p.m.

The dominating necessity of gaining ground in the direction of his own protected waters now asserted itself afresh. His first attempt had failed: he now tried more cautiously. After edging in our direction for about a quarter of an hour, he finally settled on a course which was "not the direct route for Horns reef, but was as near to it as he thought wise to attempt." The tactical plans attached to the official history show the movement; and, what is more important, they show the corresponding manoeuvres of Admiral Jellicoe's battle squadrons (plans Nos. 39 to 42). The result is most striking: we see that from 7.53 to 9 p.m., the two opposing fleets on those "roughly parallel courses," which were at the base of Admiral Jellicoe's plan; nothing but darkness prevented that logical, closely reasoned, scheme of a fleet action from being put to a test. We speak of the "action" as being indecisive, which is true; but the mere employment of the word has led to a great deal of confusion. What we term the main action was in reality the period of preliminary manoeuvre which was bound to precede the final development of the tactical scheme under which we were working. Would it have produced the overwhelming success that was hoped of it, if between 6.30 and midnight the sun had stood still, or would the opposing system of local concentrations have baffled us? It is quite impossible to say. A few cautious sentences from Admiral Scheer imply that he had several tactical surprises ready for us; but speculation on the results they would have yielded is mere waste of time.

As the words "deployed line" are the modern equivalent for "the line of battle"—an expression which is found in every code of fleet signals since the wars of the Commonwealth—it is natural enough that people should enquire whether Lord Jellicoe's tactics can be judged in the light of history. The line of argument which some naval officers seem to follow is, roughly, that Lord Jellicoe's conception of a fleet action on a deployed line, controlled in all its movements from the fleet flagship, is a survival of that formal system of tactics which gave so little result in the wars of the middle part of the eighteenth century. The era of decisive naval actions was not reached, they say, until Rodney shook the system and Howe broke it. The contention contains enough historical fact to deserve serious examination. The fairest test to which it can be

subjected is to see whether the eighteenth century battle line does or does not correspond, either in its genesis or its tactical purposes, with the deployed line upon which Lord Jellicoe depended for victory.

So far as one can judge, the plan of fighting a fleet action on a regularly formed line was the product of British naval thought. The furious *mêlées* of the first Dutch war showed the Commonwealth commanders that, whatever might be the merits of their system of "charging" the enemy, and of engaging ship for ship, it rendered centralised command impossible. The line of battle—first ordered in 1653—was, therefore, more a method of preserving the unity and cohesion of the fleet to the last moment, and of allowing the commander to seize an initial tactical advantage, if it offered, than a system of battle. The fleet actions fought subsequently to the new "instruction" do certainly show more order and precision in their commencement, although the issue was, generally, fought out in the old disordered, desperate fashion. Be this as it may, the point that matters is that the single line of battle was the outcome of the most desperately fought actions in our annals, it was an expedient to make hard fighting easier and not a means of evasion. That it conferred certain advantages is shown clearly enough by the rapidity with which the Dutch Admirals imitated our practice.

It is practically impossible to discover the reasons which gave the new system so enormous a development during the next fifty years. Details of armament, ship construction, rigging and sail plan, which will never be exactly known, doubtless played a very important part. The actual facts of the development are, however, abundantly clear: the battle line, ordered by the Commonwealth generals at sea as a preliminary to close action, becomes, only thirty-six years later, a strict method of fighting. Examine the tactical plans of Château Renault off Bantry, of Torrington, Tourville and Russell, and you will find the whole conception of fleet tactics has changed. Squadrons now engage and fight on single deployed lines, and seek to effect a concentration upon some part of the enemy's squadrons by "doubling" on the van or rear and so bringing it between two fires. Plans for breaking through the enemy's order appear in the fleet instructions of the period; but there is no evidence that they were seriously attempted.

Those who look upon any formal method of tactics with misgiving, can undoubtedly give weight to their contentions by arguing that, so long as the system of fighting out engagements on rigidly formed lines prevailed, fleet actions were, for the most part, inconclusive. Between 1700 and 1782 Hawkes two actions were about the only naval engagements which yielded decisive results; and it was precisely these two actions which marked the greatest departure from the formal system. The argument thus has a strong backing of facts; but it cannot, on that account, be accepted without reservation. Many things combined to make the actions of the time inconclusive. French maritime policy was wavering and uncertain; French admirals at sea generally aimed at preserving their squadrons against an enemy who was usually superior



in numbers and equipment; and the indecisive battles of the period are as much the outcome of the defensive strategy of our opponents, as of a defective scheme of fleet tactics.

It is quite clear, therefore, that if the tactics of Jutland are compared with earlier methods, the examination leads to no very positive conclusion. Admiral Jellicoe adopted his system for two reasons: (i) because it was the only one under which a centralised fleet command could work freely, and (ii) because he could devise no better way of using his superior gun power with decisive effect. The first does certainly show that the conditions under which fleet command can be effectively exercised have outlived the centuries; but the second is the outcome of modern conditions. In the eighteenth century concentrations of superior force on particular points of the enemy's line were brought about by methods which are no longer applicable; and on this point all analogy between past and present breaks down. The principle of deciding a naval action by local concentration has survived; but not the method of giving effect to it. Every fleet action has its historical genealogy and Jutland is no exception; but to say that Lord Jellicoe's tactical scheme has the same defects as those of his eighteenth century predecessors is far too hasty.

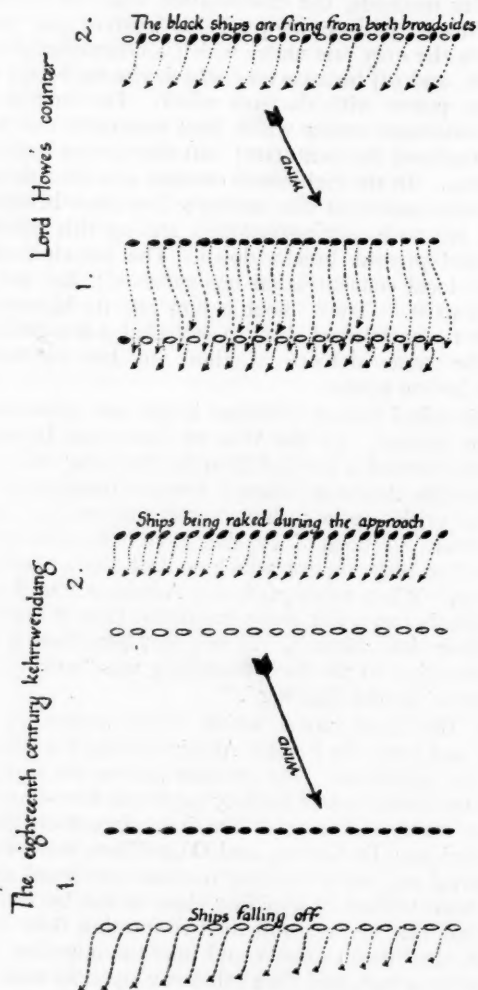
But the historical line of criticism is not yet answered; and for a very interesting reason. In the War of American Independence, the French Admirals devised a tactical plan for avoiding close action, which so closely resembles Admiral Scheer's famous movement that the historical school of critics seem to have something on their side when they say: "The German methods of evasion have been tried before; and indeed they are the only tactics which a fleet numerically inferior can possibly employ. When attempted, our Admirals found only one solution: that of pressing an action more drastically than the orthodox tactical procedure of their time allowed. It was just here that Admiral Jellicoe failed: his corrective to the *Kehrtwendung* was 'ample time,' when it should have been 'harder fighting'."

Here are the facts upon which these arguments are erected. Between 1778 and 1783 the French Admirals fought several inconclusive actions with our squadrons. The greatest success we had gained against them was at the Saints, when Rodney captured five ships out of a total enemy force of twenty-six ships of the line. In consequence of this, the tactics of De Guichen, De Grasse, and D'Orvilliers were closely studied, and leading naval officers of the day became convinced, that the French captains had been trained in avoiding close action by letting their ships fall off the wind, one by one, and then re-forming their line to leeward. By this means, the French ships could rake the opposing line as it bore down to renew the action, and then fall away again as soon as the engagement re-started. The numerically weaker fleet thus ensured to itself a series of small, but cumulative advantages; and its more powerful opponent could never get seriously to grips and redress the balance.

How far this was a considered tactical scheme, and how far it



was a movement performed for purposes other than those attributed to it will always be doubtful; but it cannot be questioned that the manœuvre, fancied or real, bore a very close resemblance to Admiral



Scheer's Kehrtwendung. Be this as it may, Sir Charles Knowles persuaded Lord Howe that, unless a counter could be found, we had little chance of forcing the French fleets to close action; and Lord Howe did

think out a very fine and drastic corrective. Departing from the tactical doctrine of his day, he ordered that, when confronted with these successive evasions, the British line should conduct a perpendicular attack—that is, each ship should steer at right angles to the enemy's course, pass through their line, and reform to leeward. This bold and original movement involved great dangers and great compensating advantages. As the ships bore down they would be exposed to a raking fire from the whole of the enemy's order; but, as they steered through it, the advantage would pass to them, with this added to it—that, for a few moments, they would be using both their broadsides and so developing a fire twice as heavy as the enemy's.

It is on these facts that Lord Jellicoe's historical critics insist with a fair show of reason: "We do not for an instant suggest that the Grand Fleet should have been pressed through the enemy's order," they say; "but we do claim that Lord Jellicoe's solution did not contain the twentieth century equivalent to Lord Howe's corrective." Attractive as the argument sounds, it does not stand examination. The success of Admiral Scheer's *Kehrtwendung* lay not in the turn away, but in the minor attack which accompanied it; and because the historical analogy contains nothing corresponding to the threat of a successful torpedo attack, it breaks down.

It would seem, also, that those who criticise our naval tactics at Jutland most fiercely have forgotten one very important circumstance. Different as are the conditions of war by land and sea, if military science develops in any particular direction, then, inevitably, both Services feel and reflect the general tendency. Nobody can now doubt that modern science gave defensive methods of war a tremendous advantage. Had battles at sea been more frequent, it would doubtless have become evident that, owing to its facilities for evasion and dragging things out an inferior fleet was far less at the mercy of a powerful opponent than had been imagined. The difficulties of storming entrenched positions on land would have found their equivalent in sea warfare, whenever a fleet commander attempted to press ruthlessly for a decision. Unforeseen obstacles and difficulties would have presented themselves; and bitter experience would have shown us that the crude and undigested doctrines of the "Nelsonic" school (I employ the title which I believe they prefer) were utterly untenable. In so far as these fiery tests would have been productive of disappointment and suffering, we are fortunate to have escaped them; but it cannot be doubted that they would have engendered a solid benefit, by extricating naval literature from the guesswork and speculation in which it is likely to be involved for the next generation.

## NITROGEN AND THE NEXT WAR.

By MAJOR E. R. MACPHERSON, O.B.E., F.R.G.S., R.A.O.C.

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WHEN Doctor Rutherford discovered nitrogen in 1772, he was hardly conscious of his momentous discovery and its far-reaching effects on the history of the world.

Nitrogen constitutes four-fifths of the total volume of atmospheric air, and certainly is present up to a height of 100 kilometres—though, of course, in a diminished ratio. It is a constant and essential constituent of all living organisms; all life seems to depend upon the transformation of proteid compounds; indeed, our very existence is dependent on the nitrogen cycle. Certain plants have the power of taking nitrogen from the air and so fixing it that it becomes available for food for vegetation. Thus the employment of these nitrogen-fixing plants in the rotation of crops constitutes a valuable means of enriching the soil. Other plants, in their turn, obtain their nitrogen from such soil, and then animals are nourished by the nitrogenous substances contained in these plants. Upon the decay of animal and vegetable matter, part of the combined nitrogen which they contain is, through the action of nitrifying bacteria, returned to the soil in the form of nitrates and of ammonia; but a large part of this nitrogen, however, is set free and returns to the atmosphere as nitrogen gas. In this manner, the nitrogen cycle is maintained in nature on an enormous scale.

Nitrogen, though chemically inert, possesses great chemical activity when combined with other elements. Witness nitrogen chloride, possibly the most violent explosive known at present.

The need for "combined nitrogen" to supply the ever-increasing requirements of agriculture has been widely felt for many years past.

As far back as 1898, Sir William Crookes, in his famous address before the "British Association for the Advancement of Science," emphasised the necessity of employing fertilisers to increase wheat-production.

Since then it must be admitted a great deal has been done, but we are still lamentably behind other countries in the organisation of our "combined nitrogen" supply. Both the United States and Germany have fully realised the importance of a "combined nitrogen" supply, especially the former.

So far, Great Britain has been dependent on Chile for its native nitrates; also on the limited supply of potassium nitrate from India.

In 1914 the imports into England were as follows<sup>1</sup> :—

	Tons.	
Nitrate of soda - -	171,910	} Total, 182,382 tons.
Nitrate of potash - -	10,472	

In 1918 the figures were as follows :—

	Tons.	
Nitrate of soda - -	300	} Total, 19,484 tons.
Nitrate of potash - -	19,184	

It is also interesting to note that the United States, in 1918, imported two million tons of nitrates, or two-thirds of the entire Chilean production of that year. Large quantities of manufactured explosives and other products were shipped from the United States to Great Britain in 1918, and this presumably accounts for the reduced imports of native nitrates shown above in that year.

Let us glance for a moment at the accompanying Explosive Chart. It is apparent that, whatever explosive we select—be it propellant, intermediary, disruptive or detonant—some *‘orm of nitration process is necessary.*

By an ironical paradox, nitrogen, which so assiduously assists in the building-up process, equally assists in the apparent destruction of its own handiwork. Nitrogen has been called the “Preserver and Destroyer of Life.”

Military writers and others are continually emphasising our isolated position in war. This perilous state of affairs was grimly brought home to us during the late war, by intense submarine activity. In the next war this will be felt at once, as it is obvious that our sea-borne trade will be attacked immediately. Even allowing for adequate counter-measures, it would be unwise, to say the least of it, to place absolute reliance on the importation of Chile nitrates, when every bottom that can reach our shores ought to be bringing essential foodstuffs.

To what source, then, are we to turn for our nitrates?

The answer seems to be—to *some* form of nitrogen fixation.

Nitrogen fixation is continually going on in nature. The nitrogen compounds obtained as bye-products in the gas industry and from the bye-product coke ovens, are the result of nitrogen fixation effected years ago by prehistoric plant life.

Another natural method of nitrogen which must take place on a very large scale is that which is brought about through silent electric discharges constantly occurring in the atmosphere. The passage of electricity through the air causes the nitrogen and oxygen atoms to unite, with the consequent formation of nitric oxide. This, in turn, is oxidised to the higher oxides of nitrogen, which are carried into the soil by rains and snows, where they form salts by interaction with the naturally occurring basic substances. It has been estimated that the

<sup>1</sup> From figures supplied by the Foreign Office and Board of Trade.

amount of nitrogen in the atmosphere is equal to about  $4041 \times (10)^{15}$  tons, assuming that the air over each acre of the surface of the earth contains 31,000 tons of nitrogen. It is, however, free. As an American writer humorously puts it: "That is the trouble; it is too free. It is *fixed* nitrogen we want."

The two most important processes of nitrogen fixation<sup>1</sup> are:—

- (i) Cyanamide process.
- (ii) The ammonia or Haber process.

The first process is being largely developed in the United States at Muscle Shoals, Alabama, and this plant was started in 1917. Essentially, the cyanamide process consists in the union at a high temperature of nitrogen with calcium carbide. The product, known as lime-nitrogen, contains 60 per cent. of cyanamide, and can easily be converted into ammonia, which, in turn, is readily oxidised into nitric acid. The cyanamide itself is directly applicable as a fertiliser, as all of its nitrogen is available as plant food, and from it descends a whole family of useful nitrogen-containing products.

The Haber process, which is being largely exploited in Germany, consists of the direct synthesis of ammonia, whereby elemental nitrogen and hydrogen are caused to combine, through the influence of a catalyst under great temperature and pressure. The resulting product of ammonia is oxidised into nitric acid. The first process, owing to its relatively simpler methods as well as its valuable bye-products, is more favoured. The latter process, however, as before stated, is being developed in Germany at Mersburg and Oppau, whose combined production has reached the useful figure of 290,000 tons per annum. At Oppau the plant is being extended at the present moment.

In England, our solitary plant (Messrs. Brunner, Mond & Co., Ltd.) produced, experimentally, 2 tons per diem in 1921.

As far back as 1909, Charles E. Munroe, addressing the United States Naval Institute, enunciated a policy which we should do well to follow. He said (presupposing the erection in that country of nitrogen fixation plants): "From this account of recent chemical progress, it is evident that it is possible to conduct a prolonged war without robbing the soil on which the people depend for food of its fertility; and, further, that, notwithstanding the enormous and constantly-increasing demand for nitrogen compounds in agriculture and manufactures, this country has reached a potential degree of independence, as regards its supply of nitrogen compounds for military uses, such as it never before enjoyed, so that it needs hereafter to consider foreign sources of supply only from the economic standpoint. However, I desire to say regarding the plants for the fixation of nitrogen, what I have repeatedly advised

<sup>1</sup> There are many other methods of nitrogen fixation, *e.g.*, the Claude, and Casale ammonia-synthesis processes. Recently, Italy has developed the Fauser process at Novara, which is yielding 10 tons of nitric acid per diem.

regarding plants for the manufacture of explosives, viz., that it is a wise policy for our Government to foster, and in a measure supervise, these manufacturing operations, and to look to it that plants for these purposes are so strategically located throughout the country as to be reasonably well protected from attack, so that they may serve the military establishment, in case of foreign invasion from any quarter or of internal uprisings in any locality."

Following out the true spirit of the offensive-defensive, let us place ourselves in the position of a "potential degree of independence," as outlined in the above speech.

How can this end be best attained?

By the beginning of 1915 we began to realise how inadequate was our mobilisation of the nation's resources. A Ministry of Munitions was hastily evolved and, be it said, did the seemingly impossible in the minimum of time. But, assuming that we had, in August, 1914, completely mobilised the full productive capacity of the country, how much would have been saved!

The War revealed the prodigious expenditure of all kinds of explosives that was necessary to attain our objectives. Taking two examples: 238,364 tons of T.N.T. and 378,395 tons of ammonium nitrate were consumed up to the date of the Armistice. In the next war, with the possibilities of larger aerial activity, to say nothing of increased ground weapons, the expenditure will be an increase to the *n*th power.

To meet this inevitable contingency, two methods suggest themselves:—

- (i) Concentrate an enormous reserve of all explosives in time of peace; or
- (ii) Concentrate a moderate reserve, with a fixed plan of mobilising our fixation plants, etc.

The idea as suggested in (i) is objectionable, as not only is considerable expenditure involved, but storage difficulties would, to say the least of it, cause undue anxiety. Further, no matter how decentralised our depôts were, they would offer vulnerable targets to hostile raiders.

The suggestion in (ii) appears to be more attractive, as certainly, from the Ordnance point of view, our storage (which, it must be remembered, includes *continual* inspection and turnover) would be considerably simplified, besides requiring far less *personnel* than in (i).

In conjunction with this, let us consider commodities other than nitrogen. Looking at our chart again, we observe that the items A, B, C, considered collectively, are the *fons et origo* of all explosives at present. We need not seriously consider item A, being internally available; items B and C are more serious. We can no more rely on imported cotton than on imported nitrates. Fortunately, fair substitutes are found in the form of wood cellulose and artichoke cellulose. The former was used by the Germans in the late war. Our home supplies of



spruce and poplar may suffice, as far as can be foreseen at present. Artichokes can be grown successfully in the lighter soils of the Eastern Counties, but each crop will take the best part of a year to mature. Oils and fats drain the nation of essential food, and this might be avoided by using synthetic glycerine prepared from beet sugar. Sugar beet has been grown in the Eastern Counties; but, unfortunately, owing to foreign competition, most of the factories have now closed down. Aniline dye works should be extensively developed, as they can be converted readily to war purposes in a short space of time.

The foregoing is admittedly a mere sketchy outline of suggested alternatives, but, nevertheless, deserves serious consideration when formulating a mobilisation plan of our industrial plants and resources.

It is suggested, in parenthesis, that the development of the foregoing schemes might alleviate to a certain extent the unemployment problem. It is a point open to much debate whether State assistance should be forthcoming in the inauguration of such schemes; this has been done in Germany, however, and the results have justified the means.

We are now brought face to face with a very difficult problem.

Under whom should the co-ordination of mobilising our national resources be placed?

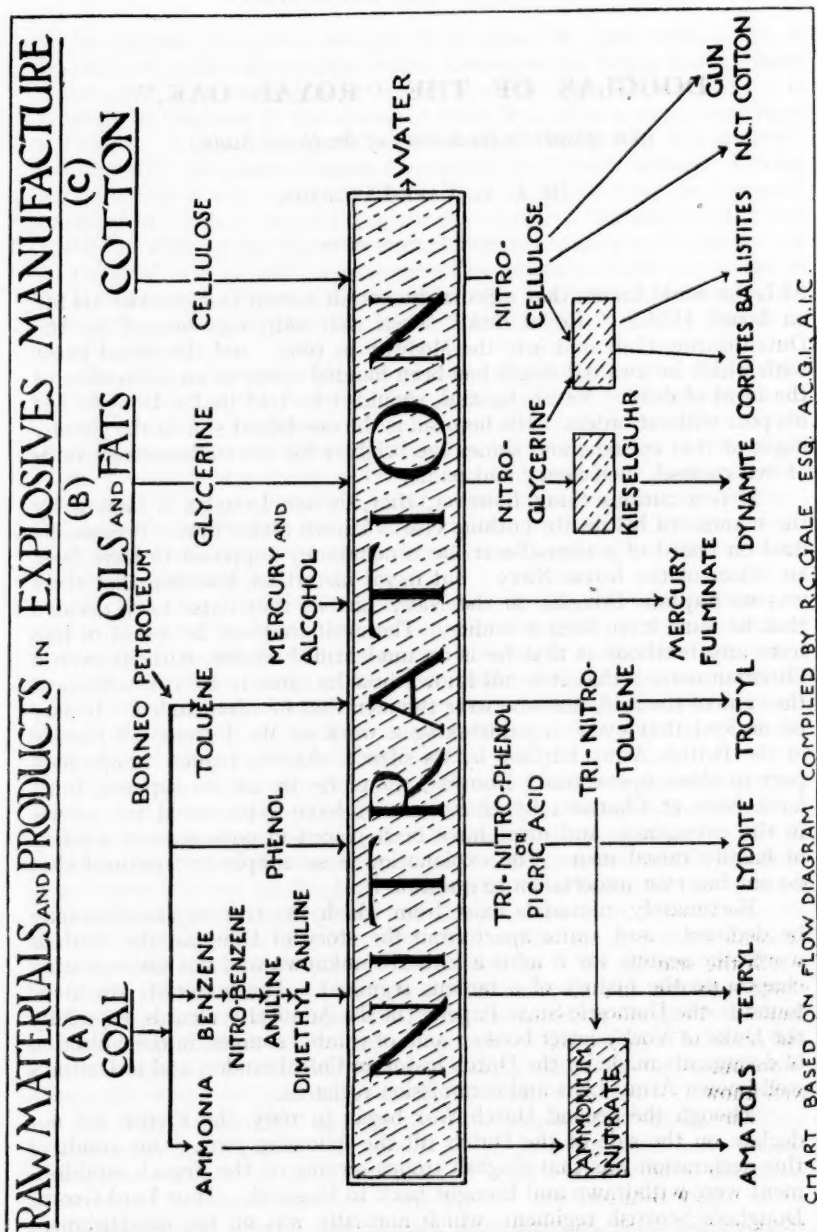
A Ministry not always functioning is expensive, cumbersome, and inclined to be bureaucratic. Would it be possible to add another Civil Member to the Army Council, designated "Controller of National Resources"? He would then be able to supervise all installations, and their economic development; and, owing to the nature of his work, should preferably be an agricultural chemist. He would be in a position to report on the latest situation and output of all our fixation plants, etc., as well as agricultural statistics.

To reiterate: without undue pessimism, we are behind other nations in placing ourselves in an independent position with regard to our "combined nitrogen" supply, a neglect for which we may dearly pay. The last war warned us that any operation, to be successful, must not only be backed by an adequate supply of ammunition, but by a *continuous* supply. This statement is almost a platitude. The importance of nitrogen in national economy cannot be too strongly emphasised, nor can its part in the next war be overestimated.

In 1920, Secretary Baker, before the Senate Committee (U.S.A.), made the following trite statement:—

"History shows that every Nation which has disappeared out of the civilisation of the world, went out by one or other of two courses: it was either vanquished or destroyed by military processes, or it exhausted its soil and had to move."

The inference from this would seem to be, that we should take adequate measures to prevent the latter catastrophe; then we should be in a stronger position to resist the former.



## DOUGLAS OF THE "ROYAL OAK."

*(An episode in the history of the Royal Scots.)*

By L. G. CARR-LAUGHTON.

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ALL the world knows that a Scottish captain named Douglas lost his life on board H.M.S. "Royal Oak" when that ship was burned by the Dutch during their raid into the Medway in 1667; and the proud boast with which he awaited death has been handed down as an expression of the ideal of duty. Never, he said, should it be told that a Douglas left his post without orders. His heroism is the one bright star in the gloomy night of that episode, and shines the brighter for the surrounding clouds of evil counsel, inefficiency and panic.

It is a curious thing, however, that, though Douglas is famous by the manner of his death, nothing else is known about him. Because he died on board of a man-of-war, he is commonly supposed to have been an officer of the Royal Navy; but naval historians, knowing that there was no Captain Douglas on the Navy List at that date, have decided that he must have been a soldier. The most that can be learnt of him from any textbook is that he is an unidentified soldier, without even a Christian name; that it is not known how he came to be at Chatham at the time of the raid, nor who were the men that he commanded. It may be noticed that even so painstaking a work as Mr. Fortescue's history of the British Army implies, by its silence, that no regular troops took part in these operations. Douglas, therefore, we are to suppose, must have been at Chatham by chance, must have volunteered for service in the emergency, and must have been placed in command of a party of hastily raised men. The explanation is so simple and natural that no one has ever undertaken to question it.

Fortunately, materials exist from which the true explanation may be deduced; and, quite apart from the story of Douglas, the truth is worth the search, for it adds a hitherto unknown and not uninteresting chapter to the history of a famous regiment. The materials are to be found in the Domestic State Papers; in the Admiralty records, especially the Duke of York's letter books; and, of printed sources, in the collection of documents made by the Dutch historian Colenbrander, and in Dalton's well-known Army Lists and commission registers.

Though the Second Dutch War began in 1665, the French did not declare on the side of the Dutch till the following year. One result of this declaration was that English troops serving on the French establishment were withdrawn and brought back to England. Thus Lord George Douglas's Scottish regiment, which normally was on the establishment

of the English Army, was brought to England in June, 1666. This is the regiment which afterwards became known as the Royal Scots. Most of its early years were passed in the service of the French King. It returned to England in the spring of 1661, but, after a year, went back to France. It returned again for the second Dutch war, but in 1668, not long after the peace, it again reverted to the French service. During the third Dutch war, in which France was England's ally, the regiment remained in France; nor did it again come back to England until it was recalled in 1678 by the threat of a war between France and England. As the regiment was abroad for so great a proportion of these years, and as the Dutch war of 1665 to 1667 was essentially a naval war, that it should have been overlooked that the Royal Scots had some service therein is natural enough.

On 26th February, 1666, there were shipped off from Gravesend, to join the fleet at the Nore, a party of 245 soldiers belonging partly to "Lord Douglas's" regiment. Lord George Douglas, it may be noticed, often appears in contemporary accounts as "George Lord Douglas." From the fact that a guard of musketeers was sent with these men it is clear that they were merely a draft, unaccompanied by their officers; and from the known fact that the Royal Scots were still in France it may be decided that these were recruits, presumably raised for the regiment against its return home.

At this time, and for long afterwards, it was the usual custom to send soldiers to the fleet. It was done whenever the fleet was short of men—and to be short of men was the rule rather than the exception—and the men were used, as far as possible, as seamen. Occasionally soldiers were embarked with their own officers, the intention in that case apparently being to use them as small-arms men; but there is no record of the Royal Scots having been used in this way.

There was also a third method in which soldiers were employed afloat; and it merits particular mention, both as being in itself curious and because the Royal Scots took their turn of duty under it. It will be remembered that the campaign at sea in the summer of 1666 resulted in a decisive victory for England. Advantage was taken of this to send a squadron to burn the shipping and the storehouses at the entrance to the Zuider Zee. This was the operation which was popularly known, from the name of the officer in command, as "Sir Robert Holmes's bonfire." The work could not be completed without landing large parties of men from the ships; and from this landing the third method of employing soldiers in the fleet originated. The story is told in the letters of the Duke of York, the Lord High Admiral, to Rupert and Albemarle, who were joint admirals of the fleet.

On 28th August the Duke wrote to the Admirals: "Since the late success upon the Schelling, the officers of the foot regiments here, taking notice that occasion for land service offers itself from on board the ships have, out of a consideration of their honour, and out of a desire to do the King service, offered and desired that some of them might upon

every expedition be commanded forth to sea. Besides that the desire is honourable on their parts and fit to be encouraged, I think it would be of good use, not only because probably they might be more fit for such employment than many of those who are much superior to them at sea; but likewise because I have from this last attempt observed that you are necessitated to command on shore many of your eminent captains of ships, leaving their ships in the meantime without commanders, and it may sometimes so happen as that you may have need of the ships before the men return again from on shore; so that I think if you had six or seven captains, and as many lieutenants and ensigns, distributed on several ships as volunteers till occasion of land service, it might be of good use, besides that it will be no harm to the regiments to keep up the martial spirit of the officers, which they have no other opportunity to exercise or show but by this means. Though you will perceive by this that my judgment inclines to this proposal, yet I am not so fixed in it as that I would make any progress in it until I first receive your opinion concerning it, that so, if you find any inconvenience in it, I may desist from it; otherwise upon the return of your thoughts upon it, I shall forthwith give order for some officers to repair to the fleet."

Four days later the Admirals answered, giving their opinion in favour of the scheme; and on the 27th the Duke wrote again, saying: "I shall very suddenly send some land officers according as was proposed to you, a Captain, lieutenant, and ensign out of each regiment (which are now five in number) which I desire you to consider how to disperse in the fleet." The soldier officers were, in fact, sent "very suddenly"; for on the same day the Duke wrote again, to inform the Admirals that they had been sent off, and with no more instructions than this: that when the Admirals judged them to be of no further use to H.M. service, they were to send them back. The Royal Scots must have contributed to this experiment, but there is no record of the names of the officers sent. It matters the less, however, because there was no opportunity of service. The fleet went to sea; but the Dutch fleet had so far recovered from the defeat of July as to make any further landing on the Dutch coast impossible. Nor was there any more fighting at sea that year; and two months after the soldiers joined, the fleet returned to the Nore to pay off and be laid up for the winter.

There was no occasion to appoint officers in this way for the following year, for the disastrous decision was taken not to fit out the fleet. Cruising ships only were to be sent to sea, the great ships being secured in harbour. The blunder was due chiefly to the lack of money, large sums voted for the Navy having been diverted to other purposes; but partly also to the belief that, because negotiations for peace had been begun, the war might be considered at an end. Even before the decision was taken to send no fleet to sea, orders were given to provide for the security of the ships in the Medway; and these orders were repeated in the following March.

The Dutch did not make their attack till June, and, until they were



actually in sight, little or nothing was done. Then all was hurry and confusion, but even so, some at least of the men on the spot thought that, with another day or two of grace, the defences would have been nearly adequate. That, however, is mere speculation, and the opinion may safely be rejected. The accomplished fact was that the Dutch had matters very much their own way, and that a very serious disaster resulted.

It may, indeed, even be said that Fortune favoured the English far more than they deserved. De Ruyter had with him a considerable body of troops in transports; but a severe gale of wind came on as soon as he reached English waters, and the transports were driven back to their own coast and took no part in the campaign. During the subsequent operations the Dutch were limited in their undertakings by the absence of these troops.

The Royal Scots at this time were in Kent, and as far as they were concerned the campaign opened on 10th June. By then Sir Edward Spragge, who was in command at Sheerness, had certain intelligence from his scouts of the near approach of the enemy. He had a few ships with him, but the task of keeping the Dutch out of the river was supposed to rest on a fort newly built at Garrison Point. Nothing very permanent seems to have been contemplated—a platform for guns and a parapet; but even so the work had not been done. The guns were there and part of the platform was there, but the defences seem to have been hardly begun. Spragge saw at once that he needed much help, and wrote on the 10th to Lord Middleton, who was Lord Lieutenant of Kent, requesting him to send down at once the whole of Lord George Douglas's regiment.

The regiment was then 1,200 strong, consisting of twelve companies. As we have to identify the particular Captain Douglas who lost his life in the service which was now beginning, it has to be noticed in the first place that four of the companies were commanded by officers named Douglas, and that, in addition, the captain-lieutenant was a Douglas. It is possible, however, to follow to a much later date the career of all these officers but one. The one whose name does not appear again after this time is Captain James Douglas.

The inference is clear. Captain Douglas of the "Royal Oak" was Captain James Douglas of the Royal Scots.

One of the best narratives of the course of events for the next few days is contained in a long letter written by Edward Gregory, a civil official at Chatham dockyard, to Pepys. Gregory was a man on the spot, and he was writing to his official chief, who was likely to be very well informed. His story may, therefore, safely be accepted as accurate, though it is unnecessary to pay much heed to his comments as to what might or might not have been done. Gregory says that on the 10th, immediately on receipt of Spragge's message, the greater part of the Royal Scots were embarked to be sent to Sheerness, but that most of them were ordered ashore again, so that eventually only



one company actually came to Spragge. What happened to the rest of the regiment is nowhere said, but it is reasonable to suppose that it came under the command of Albemarle at Chatham. It is clear, however, that the company which did come was under the command of "Captain Douglas," but whether this was the same Captain Douglas who afterwards perished in the "Royal Oak" cannot be decided from the evidence which has come to light.

The company at Sheerness found its work cut out for it. Spragge had only a scratch party with him, a few men landed from this small squadron, possibly a few more from the incipient dockyard there, this company of regulars, and finally a trainband company which seems to have been of no great military value.

As the tide flowed on the 11th June the Dutch ships began to enter the Medway, and the first that came within range were checked for a short time by a warm fire from the battery. But it was obvious to the defenders that this would not be for long. The battery stood low, and was ill protected, and it was seen that as the tide lifted the ships they would be able to fire down into it. Nor was this the only disadvantage. A party of marauding Dutchmen landed in Grain, and Spragge judged it needful to send the ensign with a quarter of the company of the Royal Scots across the river to deal with them; and this detachment never rejoined.

The battery mounted sixteen guns, supposed to be on a platform; but the platform was represented merely by some loose boards, and at the first discharge nine of the guns recoiled off it and buried themselves in the loose beach. Still, the remaining seven guns kept up a brisk fire till evening, and, finally, two of them being dismounted by the enemy's fire, and news coming in that 1,000 Dutchmen had been landed to the eastward on Sheppey, the decision was taken to abandon the post. The net result of this action was in fact creditable to the defenders. They had delayed the enemy for a day, and thereby had given their friends higher up the river an important opportunity of strengthening their defences. Advantage was taken of the delay to sink ships to protect the chain that was stretched across the river just below Gillingham; but this work was ill done, for some at least of the ships sunk in the channel were so small and so light that the Dutch had no difficulty in tripping them in order to clear a passage.

When Sheerness was abandoned the company of Royal Scots was sent thence to hold the ferry to the mainland. That it went to the ferry may be accepted as certain, but whether it remained there is unknown. In any case no attack was made upon it there, for the Dutch landing party was apparently fully occupied in carrying off or destroying the naval stores found at Sheerness. In their shortage of troops the Dutch had no intention of undertaking any serious operations ashore.

No batteries having been raised to protect the ships sunk below the chain, the Dutch set themselves that night to clear a passage, and did so without being disturbed. The 12th was occupied in breaking the chain

and destroying the ships stationed for its protection. A feeble little battery was raised at each end of the chain; there were guardships and there were more sunken ships. But the defence was very poor: ill-will begot panic and panic disaster. Quite possibly some parties of the Royal Scots may have been concerned in these operations, but there is no definite record that they were. What is certain is that a blunder was made in the defence of the chain. Some fourteen or fifteen Dutch ships crowded up to attack it, and for three-quarters of an hour were checked by a brisk fire from the ships guarding it. "They were not very forward to advance, while our ships continued spitting fire." But the guardships were ordered to cease fire till the enemy came nearer, "for it was feared we should want ammunition, and supposed that our shot dropped short." As to this, eye-witnesses were satisfied that the enemy was within effective range; and within a mile or two of the premier dockyard of England no question of running out of ammunition ought to have been possible.

The order was obeyed, the guardships ceased fire, and the enemy came on with a rush. Once they had begun to advance nothing could stop them: they broke the chain and destroyed all the ships at it. Then the defence utterly broke down. A little way above the chain, close under Cockham Wood, lay the famous "Royal Charles," which had been the English flag ship in the great battles of the previous year. She was now deserted by the few men put on board to defend her, and was taken by boats from the Dutch ships. The enemy were so overjoyed with their prize, as it seemed, that they attempted nothing further that day, though all that lay above was open to them. Gregory thought that, had the enemy "had courage to have prosecuted his design that tide, he had undeniably destroyed all the ships in the river; but I suppose his acquisition of such a victory and so great a prize gluttled and overjoyed him, for he spent the remainder of the day in much mirth, firing guns and sounding trumpets all that afternoon."

On the 13th June the enemy made their final advance. The Medway above Gillingham is narrow, and for ships of any size none too deep. They waited, therefore, till after half flood, and then drove up to Upnor, where their men-of-war engaged the castle, while their fire ships plied their calling. There were three great ships here, three-deckers, the "Royal James," "Loyal London" and "Royal Oak," and these were attacked in succession. They had, to preserve them, all been sunk, seemingly at the side of the channel; and though they rested on the bottom, the tide at the time of the Dutch advance was apparently about up to their water-lines, so that most of the eye-witnesses thought that they were afloat. It was the business of the Dutch to be better informed. If the ships had been afloat they would doubtless have been captured and taken to Holland in triumph, as the "Royal Charles" actually was; but as they were aground there was no choice but to destroy them where they lay.

There was seemingly some attempt made to defend them by men

placed on board, as well as by the guns of Upnor Castle and by extemporised batteries raised on the opposite shore. The "Royal Oak" lay lowest down the river, almost under the guns of Upnor, and Capt. James Douglas with a party of men had been placed on board to protect her. It may be assumed that the men with him were his own men of the Royal Scots; but, curiously enough, no official paper, either from the English or the Dutch side, makes any mention of his presence on board the ship. Whether he was the man who had been at Sheerness and afterwards at the Queen's ferry (as is very possible), or whether he had been hitherto in the neighbourhood of Chatham with the rest of the regiment, cannot be determined. Nor indeed is it known by whose orders he was on board, and consequently whose orders he felt himself bound to await before leaving his post. A probable explanation would be that he was ordered on board by Albemarle himself, but that in the hurry and confusion of the moment he was not told whose further order he was to follow. Thus when the order to abandon the ship came to him, he did not recognise the authority of the officer from whom it came, and so remained.

The Dutch had five fireships with them for this attack, and began by sending two of them against the "Royal Oak." What happened is best described by John Conny, a naval surgeon whose record is that of a careful observer. "About one o'clock they sailed with five men-of-war before Upnor Castle, where they were as well received by Major Scott and Capt. Winter and as warmly handled as they could desire, but yet they lay battering, while five fire-ships came up by the men-of-war, two of which attempting the firing of the 'Royal Oak' missed their design, and had not a third come had been preserved; the other two fired the 'Royal James' and 'Loyal London'; which done, they retired; and (we) having had this day's time to prepare for to-morrow, I could wish now that they would dare to taste of our provision, but their bellies are full I am confident."

So no attempt was made on Chatham yard itself, and the ships which had retreated up towards Rochester Bridge were saved. There can be no doubt that the enemy calculated their chances well. They had no troops to land, and there were many men in Chatham: the navigation was intricate, and their advance was the signal for sinking the ships above them, so that more prizes were hardly to be hoped for: the defence was certainly being strengthened from day to day, and was likely to be at its best in Chatham, where there was most to defend, and where the commander-in-chief was. All these considerations must be allowed weight; but the chief of all was that they were bent on a service of destruction, and they had expended all their fireships. Thus it happened that "the destruction of these three stately and glorious ships of ours" marked the end of the Medway raid.

It will be noticed that John Conny merely says that the two fireships which first attempted the burning of the "Royal Oak" missed their design. It were to be wished that he had been more precise. The

best defence a ship had against fireships lay in her own great guns; but the "Royal Oak" and her consorts, being laid up in ordinary, had no guns on board. Their only defence was in the muskets of Douglas's soldiers. It is permissible to suggest that the Royal Scots may have kept up so brisk a fire that the first two fireships flinched from it. The third, luckier, or more resolutely handled, grappled with her, and all was clearly over. To clear herself from a fireship which had succeeded in laying her aboard was a difficult and doubtful task for a fully manned ship in open water: for a ship unmanned, or all but unmanned, and above all for a ship aground, it was entirely impossible. Did James Douglas realise this? If he had served in the fleet the year before—and it is more than a ten to one chance that he had not—he would have heard something of the dangers of such an attack. If he had not, the extreme probability is that he did not appreciate the danger till the last minute. Until the grappling fireship actually burst into flames, he may even have expected her to vomit men instead of fire and smoke.

We can picture the scene: the inevitable approach of the fire-ship; the boats on the river, with the men in them shouting that those who wished to save their lives must leave the ships; the soldiers clambering down the ship's sides into the boats; and on deck Douglas alone, certain only of this, that among much shouting and confused advice he had heard nothing that he could recognise as an order to withdraw. And to whom, then, was his refusal pronounced? Clearly to one of his men, a sergeant perhaps, who had stayed to the last minute trying to persuade him that to remain was useless, to retire justifiable. His was an unseen death, in a pall of fire and smoke. Those who wrote official reports of the burning of those ships said that no men were lost in them. That one had perished, and how, can have been little known till Douglas's men had carried ashore to their commanding officer their story of his resolve.

Thus it happens that the accounts of his death are unofficial. They are confirmed by only one document, an undated petition from his widow:—

"TO THE KING'S MOST EXCELLENT MAJESTIE.

The humble peticon of Frances Douglase, widow of Captain  
Douglase deceased and daughter to the late Lord Grey.

"In all humility sheweth

"That your Petitioner's said husband haveing lost his life at Chatham in the defence of your Majestie's Ships against the Dutch, and likewise in consideracon of her said Father's great sufferings for your Majestie, and nothing considerable as yet done for the reliefe of her, and her fatherlesse child now reduced to extreame necessity,

"Most humbly prays that your Majestie of your accustomed princely goodnes will be gratusly pleased to grant her the prize ship called the Golden Hand now imployed at Chatham for weighing the ships their suncke.

"And your Petitioner (as in duty bound) shall pray, &c."

It is certain that the "Golden Hand" was not given to Frances Douglas, though in the absence of ready money the payment of debts by the gift of ships or stores was by no means uncommon. Nor can it be traced from the State papers that any gift was made to her, for her name does not occur again. Her husband was not in the pay of the Navy, so she had no claim against the Admiralty for the pension or gratuity awarded to the widow of a man slain in action; and, indeed, there is no trace that she ever preferred such a claim. Probably, in the then poverty of the Government, men in office salved their consciences by saying that she had no legal claim on them, but that that mattered the less, seeing that she had relatives who would be able to take care of her.

"I could have been glad," wrote Sir William Temple, "to have seen Mr. Cowley celebrate Captain Douglas's death, who stood and burnt in one of our ships at Chatham, when his men had left him, because it should never be said a Douglas quitted his post without order. Whether it be wise in men to do such actions or no, I am sure it is so in States to honour them."

The English Government has at times honoured those who have fallen gloriously through its default, and has been accused in consequence of using their glory to cloak its own shame. It ran no such risk in this case: it showed none of the wisdom postulated by Sir William Temple, and, instead of a hero, it sought about for a scapegoat. Douglas's fame owes nothing to official aid; but two-and-a-half centuries have not dimmed it. It is likely to endure as long as men shall continue to love a brave deed, and can find it in them to admire a chivalrous devotion to duty.





## THE PREOBRAJENSKY REGIMENT OF THE RUSSIAN GUARD.

(An historical sketch.)

By CAPTAIN COUNT BENNIGSEN, M.C.

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HISTORY teaches that the leading part in the development of the human race was played by the military class. Warriors of all ages owed their supremacy not only to the power they wielded through force of arms, but to the fact that they were a class of gentlemen living up to the highest ideals of mankind—foremost among them being honour, duty, and loyalty. The heroes of Greece and Rome were not merely "soldiers;" they were citizens of their State and upholders of its glory and honour. The Middle Ages will always be remembered for their knights *sans peur et sans reproche*. Loyalty to God, to his master and to the lady of his heart, were the virtues of a Crusader. Is it surprising, therefore, that the great majority of Saints of all Christian creeds were warriors? In the present time, also, the best representatives of the military class are the embodiment of the highest Christian and national ideals—the readiness to give their life for their faith, their fellow beings, and their country.

The same can be said of army units. Like individuals, regiments have their own characteristics, and only those regiments which have kept their traditions of honour, duty and love of their country, deserve to have their deeds of valour preserved for posterity.

The Preobrajensky, first infantry regiment of the Russian Guards, is one of such units. The history of this regiment is that of Russia for the last 235 years, so closely is it interwoven with the fate of the country. This regiment owes its existence to Peter the First, Russia's great reformer, and its origin was the play-army formed by the playmates of the boy Czar, who lived with his mother in the domain of Preobrajenskoe, near Moscow.

Peter trained his playmates in the art of warfare; a fortress, "Pressburg," was constructed, and veritable battles took place at the assaults upon this stronghold. In November, 1683, Peter called for volunteers for his regiment and the response was so great that, in 1687, part of the play-army was transferred to the Semenovskiy domain and received the name of Semenovskiy regiment.

Such was the foundation of the regular Russian Army. The former dragoon, reitar, streletz and other regiments bore the character of a militia, and their value as military units was very low.



Peter's sister, the Regent Sophia, viewed her brother's amusements with indulgence, and yet these very play-regiments took a decisive part not only in her deposition and the suppression of the "*streletz*" riots, but also in all the events of the rebirth of Russia.

The training of the young guards was carried on uninterruptedly, with the aid of foreigners. History has preserved the names of the Swiss, Lefort, and of the Scotsman, Gordon, Peter's faithful lieutenants. The Preobjrajensky were more than ordinary soldiers. With them Peter shared his joys and sorrows, and with their support he built his Empire. In some instances Peter entrusted them with important diplomatic missions. These same guardsmen were also the first builders of the fleet on the lake of Pereyasavl.

The Guards first saw fire in 1695, at the siege of Azov. Notwithstanding their valour, the fortress did not surrender and the siege had to be raised. It was only in the next year, during the second campaign, that Azov was captured from the Turks.

The great Northern war found the regiment fully prepared. It consisted of four battalions of four fusilier companies each; and besides, the regiment had one grenadier and one bombardier company, the latter being the nucleus of a future artillery. The regiment's fighting force was of 2,000 men.

The first encounter of the Russians with the forces of Charles XII. of Sweden ended by the defeat of the former at Narva, though the Guards behaved splendidly. On 19th November, 1700, Charles attacked the centre of the Russian army, put it to flight, and was rolling up the Russians towards their flanks; but on the right flank the Preobjrajensky and Semenovskiy regiments repulsed all the attacks of the Swedes. Till dark, Charles personally led his battalions to attack, but could not succeed in breaking the resistance of his opponent. "What peasants!" he exclaimed with admiration. On the next day he entered into negotiation with the generals who commanded the Russian army, and the Guards were able to retreat with their colours and arms. For this deed of valour the officers were awarded silver breast-plates with the inscription "19th November, 1700"—a distinction which the regiment preserved to the end.

It would be too lengthy to enumerate all episodes of this heroic struggle of Russia for an outlet into the Baltic Sea. The Preobjrajensky was ever at the fore; they acted as infantry; or, mounted as cavalry, they struck decisive blows to the surprised enemy. After the battle of Poltava, acting as cavalry, they pursued the Swedes and destroyed Charles XIIth's army. After the fall of Nienshantz at the estuary of the Neva, the Preobjrajensky, under Peter's personal leadership, gained the first Russian naval victory, capturing two Swedish vessels of 10 and 16 guns. In memory of this, one of the regiment's companies retained as a special privilege the naval uniform, which was worn every spring at the launching of the regimental boat on the Neva. The storming of the fortress Noteburg, situated on an island of the Neva, was conspicuous

by the bravery of volunteers from both regiments. When the storming unit landed on the island and approached the fortress under a hail of bullets, shells and hand grenades, it was noticed that the ladders were too short. Then Lieutenant Colonel Prince Golitzin and Major Karpov ordered to push the boats away, and led the soldiers again to attack. In the decisive moment of the battle of Poltava, 1709, the 2nd battalion of Preobrajensky stopped the Swedish onslaught.

Till the death of Peter, the Preobrajensky took an active part in all the wars. From the shores of the Baltic they were thrown over to Turkey, from Hamburg to Baku on the Caspian.

Separate battalions of the regiment fought in all the wars waged by Peter's successors.

It is impossible to overlook the part taken by the Preobrajensky in the palace revolutions of the eighteenth century. Catherine I., Anne, Elisabeth, and Catherine II., ascended the throne owing to the support of the Guards. However, the Guards did not play the part of Pretorians, deposing Emperors at their own discretion. The Russian Guard was always influenced by national feeling, and expressed the will of the people.

In order to understand the part played by the Guards in Russia's history of the eighteenth century, one must remember that Peter having declared service compulsory for all nobility, made of the Guards a sort of training school for all services. The most fit of the young men were promoted to the rank of officers, others were appointed to the civil services. Thus the Guards at that time were not only an armed force, but a governmental institution with an influence on politics.

The regiment fought in the Napoleonic wars: Austerlitz (1805), the Campaign of 1807, Borodino (1812) and the Campaign of 1813. The bayonet attack of the 2nd Preobrajensky battalion against the French positions at Gieshubel is a well-known feat of this campaign. The regiment was rewarded by the St. George's colours, for taking part in the battle of Kulm, when the French corps of Vandame was destroyed. During the December revolt of 1824, some of the Guards regiments went over to the revolutionaries. The Preobrajensky 1st Battalion was, however, first in supporting the young Emperor, Nicholas I., and in helping to suppress the revolt.

In the wars with Turkey during the nineteenth century, the Preobrajensky took part in the siege and capture of Varna, 1828, and in the war of 1877-78, when they distinguished themselves, especially at Tashkisen.

The Guards were not sent to the front in the Japanese war, 1904-1905, but a painful and responsible part fell to their lot during those years of the first revolution. This was the first revolt of the forces of disruption against the Government. Victory remained with the latter, owing to the loyalty of the troops. The safeguarding of the capital was entrusted to the Preobrajensky, and to the other Guards' regiments. Russia was saved until the day—eleven years later—when the absence of trustworthy troops in Petrograd at a critical moment, and the

indecision of the Government, gave unorganised mobs the opportunity of snatching power out of the Czar's hands.

The Japanese war disclosed the weakness of our army, and in the years preceding the Great War, great advances were made in military training, especially in the Guards regiments. The latter were not only privileged troops but also the pick of the army, which, at the critical moments, were thrown into the most dangerous places and invariably saved the situation.

On 13th August, 1914, the Preobrajensky, commanded by Major General Count Ignatiev, left Petrograd. Upon reaching Warsaw, the regiment remained in reserve about a fortnight, and on 29th August advanced upon Lublin with the Semenovsky. The situation was grave. Whilst the armies of General Ivanov were victoriously repelling the Austrians towards Lvov, our 4th Army, under General Zaltza, was retreating on Lublin, under the pressure of superior Austrian forces. It was urgent to stop the enemy, who threatened the important strategical line between Lublin and Kholm.

On 2nd September, at dawn, the brigade attacked parts of the Xth Austrian Corps, advancing from Vladislavov. After a stubborn fight, lasting a whole day, the Austrians retreated. Prisoners stated that they were greatly impressed by the sight of tall Preobrajensky soldiers marching to attack, led by their officers under fire of the enemy artillery and machine guns.

The regiment, having lost over 500 men and many officers, occupied Vladislavov. They had fulfilled their task. The centre of the Xth Austrian Corps was defeated and the enemy was in full retreat.

The 1st and 2nd Guards infantry divisions, incorporated in the 4th Army of General Evert, who had replaced General Zaltza, pursued the Austrians, the Preobrajensky fighting uninterruptedly.

The 6th Reserve German Corps of General Voirsch, sent to support the Austrians, was also defeated, and lost all its heavy artillery and a whole military train. On 12th September the regiment captured the town of Janov, after which the cavalry pursued the enemy. On 15th September, after a short but stubborn fight, the village of Kreshov and the bridge over the San were taken and on the next day the brigade crossed the frontier of Austria and entered Galicia. The enemy's retreat was so rapid that contact was lost, and the regiment continued its advance into Galicia without fighting. During this fortnight the losses in killed alone were 10 officers and a few hundred soldiers.

From Galicia the Preobrajensky was hastily transferred to the northern front, where the position was menacing, owing to the Austro-German break-through in the direction of Warsaw. In the continuous fighting of the second half of October near Ivangorod, the Guards succeeded in saving that badly armed fortress, after which, advancing with the Siberian forces of General Lechitzky's 9th Army, they not only saved Warsaw, but, taking over 15,000 prisoners in a few days, pursued the enemy, in retreat on the whole front as far as the river Varta. The



A PREOBRAJENSKY SOLDIER, 1701-1724.

*Drawing by Countess O. Bennigsen.*

pursuit of the enemy in the direction of Cracow took place without severe fighting, owing to the Austrians' hasty retreat. From the middle of November till 14th December, the regiment occupied positions near the village Skala, and later by Poremba-Gurna, against the first line of defence of the Cracow fortress, which had the possibility of using its 12-inch guns against our 6-inch howitzers. The Russians suffered from a great shortage of ammunition. On 14th December the regiment was ordered to retreat upon the river Nida, from where it was transferred to Garvolin.

This was the period of a fresh German offensive against Warsaw, when our armies barred their advance on the rivers Rava and Bzura. At the end of December, the regiment was moved from Garvolin and stood in reserve at Dembna Volia on the Pilitza.

In February, 1915, the 1st Guards' Infantry Division was transferred to Lomja, where during four months it occupied positions near the small heroic fortress of Ossovetz, and at the end of June was hastily moved to Krasnostav, which was occupied by the Germans. The picked troops of General Mackensen, having broken through the Russian front on the Dunetz, swiftly developed their success, owing to their immense superiority of artillery, and our lack of shells. The Russians, weakened by the stubborn fighting in the Carpathians, were slowly retreating, repelling the enemy's attack. On 18th July, near Krasnostav, the Russian Guards met the German Guards for the first time, and not only did the former repel all German attacks, but succeeded even in advancing. The 14th Company of the Preobrajensky Regiment, though losing 60 per cent. of its fighting force, retained its positions, although the neighbouring army units left their trenches. During the night, the order to retreat was given, the task having been fulfilled. The Germans were stopped, and the neighbouring units could retreat in safety. From that date till they had reached Brest-Litovsk, the Preobrajensky were in retreat, fighting ceaselessly. The fighting was carried on under unequal conditions, as we often lacked ammunition to reply to the German artillery. Still, the retreat was carried on in good order. From Brest-Litovsk the regiment was transferred by rail to Vilno, where it was incorporated in the 10th Army of General Radkevitch, against which operated the Xth German Army of Eichhorn. After the fall of the fortresses of Novogeorgievsk and Kovno, the Germans moved rapidly on Vilno—and the Guards, tired and reduced in number, received the order to bar their advance. On 1st September, the Preobrajensky was ordered to take the Gudulinsk height, occupied by German infantry. On 3rd September, at dawn, the battalions attacked; German trenches near the village Melegura were taken by the first battalion, which suffered terrible losses. In this attack it lost its Commander, the brave Colonel Baranov. All the officers were killed or wounded, and the battalion's senior signal N.C.O. by his own initiative took the command. The 9th Company, having turned the enemy's flank, was destroyed by his reserves; the 4th battalion suffered fearful losses whilst crossing the marsh on the right flank. The



joint attack of the 4th and 2nd battalions on Gudulin did not succeed. At the end of the battle, the 1st battalion's strength was only 125 men without a single officer; the 4th—208 men with one officer; the 9th Company was non-existent. The regiment had lost altogether 1,300 men. The advance of a reserve battalion of Guards' Rifles saved the remnants of the Preobrajensky, which, notwithstanding heavy losses, remained upon their positions all through the night. After that, the regiment retreated upon Vilno, under very painful conditions. The neighbouring regiments of the Trans-Amur division had one rifle for two men, and the shortage of S.A.A. and artillery ammunition was very great. On 13th September, Count Litke, the beloved Commander of the 4th battalion, was killed by a shell. In Vilno, the regiment was reduced to two battalions, its fighting force being only 1,000 men and 16 officers. Here the regiment was nearly cut off in the German cavalry's breakthrough north of Vilno towards Molodechno, but by an all night 52 verst march with intermediate fighting it succeeded in extricating itself, without losing a single man. After this the Preobrajensky were transferred to Dunilovich, where they stayed for three months to fill up the ranks, after which they were again sent to the front; being mostly in reserve, however, they took no part in the great battles of this period. The command was taken over by Major-General Drenteln, Count Ignatiev being appointed Chief of the Staff of the Guards' Corps. During the long rest, the regiment was brought to a brilliant condition. Many wounded returned to the ranks; the spirit of the young soldiers was excellent. Discipline and training were perfect. In the spring of 1916 the two Guards' Corps were formed into a special unit commanded by General Besobrasov. This unit was to advance on the front of the river Stokhod from Rojitché towards Kovel. The failure of this operation is well known. In the battles of the Stokhod, the Guards lost over 32,000 men, and the results, although important (10,000 prisoners and 50 guns), did not compensate for the loss of the best men. The Preobrajensky, after suffering severe losses in an attack upon the enemy's fortified positions near Raimisto, was moved from one place to another until, with the other Guards, they joined the army of General Kaledin, with which they took part in the attacks upon Sviniukhi Wood on the 16th and 20th September. One must mention the splendid behaviour of the 2nd battalion, which was sent in support of other units occupying the wood. The battalion advanced slowly in the communication trenches filled with wounded. Then Captain Kutepoff, the battalion commander, ordered his men out of the trenches and having dressed the battalion on the right moved it in extended order towards the German lines. The German barrage fire concentrated on the battalion which was covered with smoke and dust, but from time to time one could hear the tread of 1,000 men marching as though on a parade ground and the words of command of the officers. The Germans fired nervously and the losses of the battalion during this advance were comparatively small. They were, however, very heavy in the next stage of the fight. Here, again,



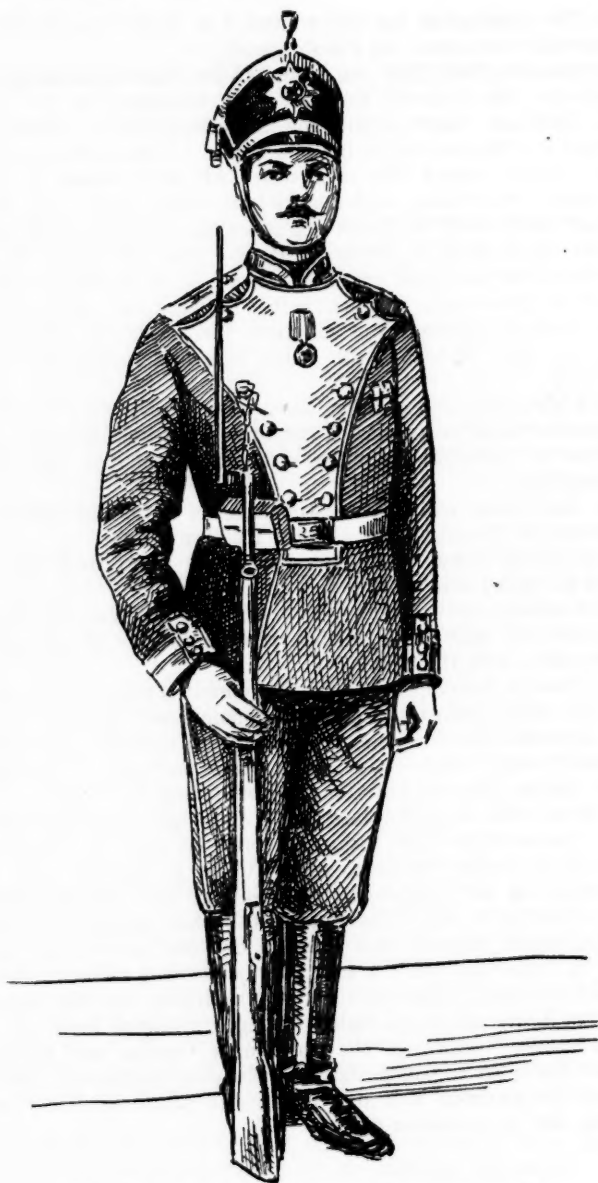
the losses were very severe, many officers and over 1,000 soldiers having fallen. At the end of 1916, the political horizon darkened. Constant defeats, the bad food supply of the capital, together with many other reasons, make good soil for revolutionary propaganda. The first days of the Revolution in Petrograd have so often been described that it is useless to dwell on them again, but it is necessary to say that when one speaks of the Guards' regiments joining the revolutionary mob, these were only reserve battalions consisting nearly entirely of Petrograd workmen, with but a small cadre of trained officers. The actual regiments were at that time fighting on the front and setting an example to other units. Order No. 1, issued by the Soviet of Soldiers' and Workmen, by destroying the very foundations of discipline and obedience and establishing Soldiers' Committees, was responsible for the army's disruption. The army was flooded by agitators calling to end the war against the Germans, in order to fight against the *bourgeois*.

This agitation bore fruit. Tired of the war, tempted by the promise of land, the soldiers began to show insubordination, and refused to advance. In some places they left the front, or fraternised with the Germans. In the midst of this disruption, Peter's brigade remained faithful to its duty to the last. Its last exploit under Tarnopol was a heroic feat.

The Provisional Government, hoping to raise the *morale* of the army, and also under pressure of the Allies, decided to start a great offensive in the direction of Halicz upon the front of the 3rd Austrian Army. It was at first successful, owing to a strong artillery support, but was soon stopped by the enemy's counter-offensive. The arbitrary abandonment of its positions by the Mlynovsky regiment broke the front and gave the enemy the opportunity of appearing on the rear of the neighbouring units. The Russian Army retreated, a retreat which soon became a panic flight. The order was given to evacuate Tarnopol. Among the general *débâcle* the Preobrajensky and Semenovskiy Regiments were thrown towards Ezerna, 15 kilometers west of Tarnopol, to stop the German advance. They fulfilled their duty, but had to retreat fighting with the enemy, as they had no support from other units.

It is necessary to have seen a panic at the front, in order to appreciate the heroism of Peter's brigade. Several times the brigade was thrown into the worst places and every time restored order. Both regiments always remained at their posts and closed their history of military glory, as they had begun it two centuries earlier under Narva, by writing their names on the pages of Russian history.

But the end was nigh. The regiment, commanded by the brave General Kutepov, remained intact to the end of 1917—discipline was maintained, the officers were saluted; soldiers' committees interfered only in the questions of supply. There were even small skirmishes with the enemy. In November, 1917, Krylenko issued an order to elect the command. The Army existed no more. Notwithstanding the fact that soldiers begged many officers to remain, the majority left, availing them-



PRIVATE IN THE PREOBRAJENSKY REGIMENT, 1908.  
*Drawing by Countess O. Bennisgen.*

selves of the permission for the wounded to leave the service. Soon the Bolsheviks disbanded the Preobrajensky.

Many officers, with their last Commandant-General Kutepov, fled to the South to join General Kornilov and Alexeyev, or to Siberia to Admiral Koltchak, where, organising units from former Preobrajensky, they fought the Bolsheviks during two years. General Wrangel's retreat from the Crimea ended the civil war. All who valued honour and liberty above everything, endeavoured to escape from the Bolshevik yoke. Scattered about different countries, the Preobrajensky formed a regimental union with a centre in Paris. Its first object is to help former comrades and their families, abroad or in Russia. The former officers of the 1st Guards' regiment refuse no work, and some may be seen at heavy manual labour. But amongst them there are wounded and invalids, the care of whom the union has undertaken by aid of its limited funds.

The Union has also another aim. All believe that the Bolshevik *régime* is not eternal in Russia. Symptoms of regeneration are apparent, and a healthy national feeling is gradually replacing the cancer of internationalism.

The Red Army will become the Russian Army, in which will be incorporated the traditions of the old Russian Army.

To maintain these traditions and hand them over to the new Russia, is the other and chief object of the Union.

Such Preobrajensky officers as have outlived the War and Revolution and are now in exile, believe that representatives of foreign armies will sympathise with their aims.

The Russian Army perished for the common cause of all the Allies, first at the front against the common enemy, and later in its struggle against Communism—the enemy of European culture. It received the blows which might have fallen upon other nations. It perished, but its death made apparent the danger threatening the world.

All those who stand for law and order ought to unite against this menace. Communism has succeeded only because its advocates are inspired by a single purpose, to whatever nationality they belong. The necessity of such solidarity has been at last felt by other social classes. Already a bond has been established between English and Russian scientists, English and Russian lawyers, clerics, doctors.

Let us hope that such a link will be formed between the British Army with its many glorious military traditions, and the remnants of the Russian Army which are endeavouring to preserve their own.

Two hundred years ago the Scotchmen Gordon and Bruce helped the Great Peter to organise the first Russian regiments. We believe that their countrymen will not forget the sacrifices these regiments have made for the common cause.

## MEMORIES OF THE OLD PIPECLAY ARMY.

By COLONEL J. G. DOWNING.

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THE following article has been compiled in order to give a short and very sketchy account of the Army, but more particularly of the outward appearance of the Infantry of the Line, during the early years of Queen Victoria's reign.

The writer has often noticed how few there are now left who possess any knowledge of the old days of coatees and epaulettes, and he has, therefore, attempted to put together some of the information which he obtained when quite young (for he was born in the Service, and passed all his young days within sound of the bugle calls in barracks), and also much hearsay which he trusts may be considered worth recording. It will be noticed that the regiment in which his father served during his childhood was the 27th Inniskillings.

There always has existed one great difference between the British and nearly all other armies, in the fact that, as constituted for active service, the infantry brigades are formed by a haphazard collection of single battalions, two, three, or at most four, battalions going to make up a brigade; in foreign armies a brigade is formed of two regiments, each regiment consisting of two or three battalions, and these two regiments were invariably brigaded together. In the British Army the terms "regiment" and "battalion" were almost synonymous.<sup>1</sup> Regiments often had two and three battalions during the Napoleonic War, but the battalions never served together as one regiment. The 27th had three battalions, but these three battalions met once only at Bordeaux, in 1814. After the peace, regiments were reduced to one battalion each, except the 1st Royals, the 60th, and the Rifle Brigade.

In 1850, however, three of the line regiments possessed reserve battalions, namely the 12th, 71st, and 91st; but by 1857 the reserve battalions of the 71st and 91st had been reduced, and when the Army was increased in 1858 and a second battalion was added to all the regiments from the 2nd to the 25th, the reserve battalion of the 12th became the 2nd battalion; before this date it was composed of only six companies, and was commanded by a major.

The Horse Guards and the War Office were quite distinct in 1837, and performed separate functions; the former was the office of the Commander-in-Chief, the latter was the office of the Secretary of State for War.

The Commander-in-Chief held military command over the Army; the Secretary of State for War held no military command, and only

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<sup>1</sup> Carlyle has noticed this singularity of the British Army.

dealt with financial matters and supply. He, however, exercised control over the paymasters, and exerted his financial authority once a month, when his representative, the Paymaster, called the roll on muster parade.

The Master General of the Ordnance had command of the two Ordnance Corps, and was also responsible for the equipment of the Army, as well as being accountable for the discipline of the Artillery and the Engineers. Thus the responsibility for the upkeep and wellbeing of the Army was divided amongst three different personages, without any well defined co-ordination of duties.

In 1837 the Army was small; the enlistment was practically for life and, except in the case of the really bad characters, no person returned to civil life until he was old and worn out and had a pension to live on; so, unfortunately, the Army received a bad name from the civil population, who thus only came in contact with the "bad hats" who had been got rid of as incorrigible, and knew nothing of the very many sound, good men who, though a bit wild in early life, yet with discipline had developed into trustworthy and useful soldiers. Flogging was in vogue in those days, but by no means was it so universally in use as is sometimes supposed. The class of men enlisted required that some form of severe punishment should be in the background to enforce discipline, but only the vicious and the unruly ever felt the "cat," and then, generally speaking, once was enough; when, however, a man was found to be incorrigibly bad, he was drummed out to the tune of "The Rogue's March."

The rank and file were proud of their regiments, and were always careful to uphold its good name.

The following anecdote gives an instance demonstrating both the trust in his men evinced by the Captain, and the loyalty shown by the men. The Captain of the Light Company of the Inniskillings made a bet he would hang up his gold repeater watch in his company's room for a week, and that it would remain safe for that period, and he won the bet, because the men were put on their honour, and on this the Captain had trusted.

There was a very large proportion of Irish in the Army enlisted during the first ten years of Queen Victoria's reign; perhaps almost as many as two out of every three recruits were Irish, even in the English and Scottish regiments.

The Cavalry, Artillery, and Sappers were "special" enlistments; that is to say, the recruits for these branches were specially selected, at the time of enlistment, for the branch of the Service which they entered, by the recruiting sergeants of the respective corps or regiment. What was left over were sent to the infantry. I am here alluding to the enlistments in London and other large centres, not to those taking place in the county towns, or at the headquarters of the regiment. There were, therefore, great differences in the class of the recruits that went to the infantry regiments, and so came about the adoption of the system of selection for the two flank companies in each infantry battalion, the

tallest men going to form the Grenadier Company, the smartest, without reference to size, going to form the Light Company. These two companies remained with the Colours; they were not sent away on detachment like the battalion companies. At some stations in Ireland, the headquarters of a regiment were often reduced to the two flank companies, with band and colours, and it may here be remarked that the splitting up of battalions in this way was productive of much harm.

It is probable there were different methods of selecting the men to fill the vacancies in the flank companies in the various corps, but the following was the procedure adopted in the 27th.

The vacancies in the flank companies were filled up by selections made by the Colonel, always on a Commanding Officer's Parade. The procedure was for the Captain of the company involved, to address the Colonel before the battalion was formed up from the company parades, and tell him he was a man, or so many men, short; the Colonel would then, after the companies had marched on their coverers,<sup>1</sup> go round with the flank company Captain, and between them they selected their men. This was the cause of some heartburning, because a captain felt that so soon as he, with the help of his colour-sergeant, had made a man smart and efficient, he had to run the risk of losing him, for the men were ambitious to become grenadiers or "light bobs," and there were also privileges attached to the wearing of wings (for instance, passes were more often obtainable) to induce the men to accept the transfer even from a comfortable company. Sometimes the smarter men were smuggled into the rear ranks on such occasions, in order to escape the eye of the Commanding Officer; but probably this was not of very much use. The defaulter sheets did not play much part, if any, in these selections.

There were two objections to the flank company system: the one was, these selections caused trouble and unpleasantness in the regiment; the other that, as soon as a force was detailed for active service, composed of anything over six battalions or thereabouts, it became customary to detach the flank companies from their own battalions and form a composite Grenadier and a Light Infantry battalion. General Officers liked doing this, because it gave them a little patronage in filling the battalions staff appointments, and also gave them two fine battalions, fit for any service, though, unfortunately, it was at the expense of the remainder of the force.

On the other hand, the advantages were very great: it created emulation and a healthy rivalry in the battalion as a whole, as against a little heartburning amongst the captains and colour-sergeants, and gave the Commanding Officer two companies on which he could rely in all circumstances; they were, in fact, the spear point, the remainder of the battalion being the shaft.

The Light Companies seem to have had a better reputation than the Grenadiers, presumably because the Grenadiers were chosen for their

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<sup>1</sup> Called markers after 1870.



inches alone, and without reference to character, whereas the "light bobs" were chosen for their smartness and good character. There was an old rhyme the writer learned when a child :—

"Who comes here?  
A Grenadier!  
What do you want?  
A pint of beer!  
Where's your money?  
In my pocket!  
Where's your pocket?  
I've forgot it!  
Get you gone, you drunken blockhead!"

But on the other side we have the old verse in the "British Grenadiers" :—

"Some talk of Alexander, and some of Hercules,  
Of Hector and Lysander, and such like folk as these;  
But of all the world's great heroes, there's none that can compare  
With the tow row, row row, row row row, the British Grenadier."

So let us turn a blind eye to their little faults, and remember only the bravery they invariably showed, which has made their name immortal.

The Grenadiers were the escort of the colours, and up to the present time, when trooping the Colour, the guard on the right of the line is marched across the parade, from right to left, to where the Colour is posted, the band and drums playing the "Grenadiers' March," the last vestige left of the Grenadiers of olden days.

In Fusilier and Light Infantry regiments, the flank companies were not designated grenadier and light, but were called Right flank and Left flank Companies, respectively.

The Grenadier Guards are not a survival of the old-time Grenadiers, but are, so to speak, a later creation, having had the word Grenadier added to their former name—the First Regiment of Foot Guards—to commemorate the defeat of the Grenadiers of the Imperial Guard at Waterloo; and in old Army Lists their title is always The First (or Grenadier) Regiment of Foot Guards.

The badge of the white horse on a red ground, with the motto *nec aspera terrent*, has been considered to have been granted in 1715 to those regiments that were employed in repressing the Jacobite rising of that year; later, a similar badge was worn on the Grenadier caps of all the infantry regiments, and it is not known whether there is any connection between the wearing of this device by the specified regiments and the wearing of it by all the Grenadiers. This same emblem and motto was adopted for the Royal Hanoverian Guelphic Order, founded on the 12th August, 1815, 101 years after the accession of the Guelphic family to the British throne.

During the period of long-service enlistments, desertions were not so frequent as they subsequently became. After 1872 the matter was quite a scandal; many young men seemed to make it a practice to enlist, desert, and then try it on again in another corps (possibly with the object of finding some easy going, comfortable regiment to continue to

serve in), making away with, or losing by neglect, the whole of each free issue of necessaries which they received on enlistment; but any necessaries the deserter omitted to carry away were immediately divided amongst the rest in the barrack room, and, of course, when the sergeant came to take an inventory of the absentee's kit, there was little, if anything left, and it was well known the deserter took very little away with him, from fear of detection. It was different, though, in other cases. The writer remembers the officers of a distinguished regiment, stationed in the old Gallowgate Barracks in Glasgow, having had to lament the loss of nearly a dozen of their more valuable band instruments under the following circumstances: it seems an enterprising manager of a New York theatre, wanting a good orchestra, sent over an agent to this country to engage musicians at a lower rate than he would have to pay in America. This cute Yankee, having landed in Glasgow, thought he could save himself trouble, and also do a good stroke of business, by inducing the bandmen of this regiment to take on the engagement in the New York theatre. He did so, gave the men each an advance of salary, and personally conducted them to their new employment; so they deserted and took their band instruments with them. The band instruments being the private property of the officers, an attempt was made to arrest the men for theft and get them extradited; but as they were also deserters—a political offence—they could not be touched. Another case of a deserter taking property away with him, occurred at Aldershot, where an officer's servant made a clean sweep of the carriage clocks which, in those days, adorned the mantelpieces in the officers' huts. He must have taken a good number, for he did not confine himself to his own corps; but possibly he was a clockmaker by trade, and wanted a stock with which to set up shop. It is well known that the receivers give little or nothing, compared with their value, for this class of stolen property, because it is so very difficult to disguise it.

In early days of the Victorian period, before the inception of the short service system, young men sometimes enlisted after having had a row with their families, and then the father, constrained by the tears of the boy's mother, would have to pay "smart money" (£20 it is believed was the sum required) in order to buy the misguided young man out, this being the sum always required to release a recruit after attestation.

Commissions in the Cavalry and Infantry were, in ordinary circumstances, obtained by purchase; but to obtain a first appointment it was necessary to be nominated by the Commander in Chief (the Guards and Rifle Brigade had special regulations), this list being kept without reference to political parties; but those hoping to obtain a commission without purchase, went at an earlier age to Sandhurst, where to a certain number of cadets passing out each term, were given commissions without purchase. The number of these commissions varied with the number of death vacancies, and also with the number of promotions to the rank of General Officer which had to be filled up.

It was the usual practice for an officer, as soon as he realised he was

in a dying condition, to send in his papers to sell out. This was done in order to save his commission money from being lost. Also it was usual for a senior Lieut.-Colonel to sell out before he was promoted Major-General, unless he was sufficiently distinguished or had enough family influence to ensure his obtaining employment as a general officer.

A reference to old volumes of Hart's "Army List" will always show the commissions an officer purchased.

The Ordnance Corps were subordinate to the Master General of the Ordnance, and cadetships for these corps were given by him. After nomination there was a qualifying examination to be passed for entrance to the Royal Military Academy, and at the end of his period of instruction, the cadet was commissioned in either the Royal Engineers or the Royal Artillery.

The Royal Engineers were not only a corps of staff officers available for many technical duties besides ordinary staff, but, also, a small proportion officered the Corps of Military Artificers, afterwards the Royal Sappers and Miners. Up to 1813, the officers and men wore a blue uniform, with black velvet facings, lined with white; but in this year their coats were changed to scarlet with blue facings, in order to assimilate the dress to that of the infantry, and to render them less conspicuous and, therefore, less subject to danger.

The Artillery Officers in the early Victorian days formed a select and comfortable corporation, separate from the rest of the Army, and governed by their own rules and regulations. Their foreign service did not include India (the East India Company having their own Artillery) and promotion, though slow, was sure, as it was mainly by seniority. It was a good service, much sought after, though it was difficult to obtain a nomination for entrance.

In those days the rank of Major did not exist in either of the Ordnance Corps. Batteries, troops, and companies were commanded by Captains and there was another rank called 2nd Captains, and when the Captains obtained the rank of Major, the 2nd Captains became Captains.

The one drawback to being on the Master General's list was that, holding a political appointment, he went out of office when the Government resigned, and his list of candidates for commissions lapsed altogether, the incoming Master General forming a new list from the youth of his own political party; therefore, owing to the change of a Government, some young men had to obtain a commission by purchase, costing their parents £450 in the Infantry, or £840 in the Cavalry, instead of joining the Artillery or the Engineers.<sup>1</sup>

The regulation prices of Infantry commissions were :—

Ensign	-	-	£450	} The regulation values of all commissions are to be found in the older Hart's "Army Lists."
Lieutenant	-	-	700	
Captain	-	-	1,800	
Major	-	-	3,200	
Lieut.-Colonel	-	-	4,500	

<sup>1</sup> The writer's father was a sufferer in this way.

The rank of Ensign was the lowest of the commissioned officers in the Infantry, the corresponding rank in the Cavalry being that of Cornet, the exceptions to this being that, in the Fusiliers, the 60th Rifles and the Rifle Brigade, the lowest rank was denominated Second Lieutenant. In the Cavalry all regiments had Cornets, but in the Life Guards the junior rank was "Cornet and Sub-Lieut."

It might have been supposed that Ensigns, being so named from carrying the ensigns, or colours, would have been so named in the Fusilier regiments but not in the Light Infantry corps; whereas the contrary was the fact.

The 7th Fusiliers were quite exceptional, for this regiment had no rank below that of Lieutenant.

After 1855, all *Infantry officers* of the lowest rank became Ensigns, and in 1871, when purchase was abolished, all Cornets and Ensigns were promoted "Lieutenant" in one large *Gazette*. After this date, the officers appointed to the new non-purchase commissions (which were temporary) were called "Sub-Lieutenants."

Besides the regulation value of a commission, there was also the over-regulation price, which had to be paid on all promotions, and this varied in different regiments, and also in the manner in which it was paid. The commissions in the Highlanders, Fusiliers, and Light Infantry had always a higher over-regulation value than the average, such regiments as the 7th, 23rd, 42nd, 52nd and 79th always exacting a high price for promotion in their ranks.

The highest price ever paid for command of an Infantry regiment was £13,000, said to have been given by Lord Frederick Fitzclarence to command the 7th Fusiliers. The highest price paid to command a Cavalry regiment is said to have been paid by Lord Cardigan, to command the 11th Hussars, and it has been stated the sum was as much as £30,000. These two sums, which appear to us now as enormous, were commonly reported to be the prices paid, and certainly the promotion was extremely rapid in both cases, command being obtained in the first case in a little under 10 years, in the second case with six and a half years' service.

The Infantry in 1837 (except the 60th and Rifle Brigade) were still armed with flint lock muskets,<sup>1</sup> but the sergeants' pikes, which were commonly, though incorrectly, called "halberds," had ceased to be carried in 1831, and these two weapons have given rise to two expressions which are still often heard in ordinary conversation by people who are possibly ignorant of the meaning of the phrase they use. One often hears the expression "lock, stock, and barrel," meaning the complete

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<sup>1</sup> Soldiers were in the habit of calling their weapons "firelocks" and continued to do so long after they were armed with rifles. The writer remembers, on coming home for the holidays in 1867 or early in 1868, his father's servant taking him into the pantry to see his new "firelock." It was the Snider rifle which was hastily adopted for issue, having the Snider breech-loading mechanism fixed to the Enfield rifle barrel.

amount of anything. This is an old military saying, and comes from the old equipment ledgers, in which the musket was divided into its three component parts. The other phrase, "plain as a pikestaff," alluded to the pikes of the covering sergeants which were plainly seen when in line, and enabled one of the majors to dress the alignment of the companies.

In 1837 the rank and file of the Infantry of the Line wore swallow-tail coats in full dress, of coarse *red* cloth, single-breasted, and braided across the front with white tape to strengthen the cloth, which was of very poor quality. The buttons were of pewter, or lead, which were placed singly or in pairs, according to the regimental pattern. The braiding, which was a continuation of the buttonholes and buttons, accorded with them and formed single or double stripes across the coat, as the case might be, but it was straightlaced, or looped, according to regimental pattern. Here is another expression which has become common in our language, viz., "straightlaced."

The battalion companies had a small worsted edging at the end of the shoulder straps, of the shape of the shoulder scales of the officers. The flank companies had a larger roll of worsted work round the shoulder seam, and all the companies in Highland, Fusilier and Light Infantry Corps wore the same. The object of this roll was to keep the sling of the fusil on the shoulder, without danger of its slipping off when the Grenadiers slung their firelocks during the process of handling and throwing their grenades, in the days when a grenadier really was a grenadier.

The trousers with the narrow red welt, or stripe, were first adopted in 1832, and have remained practically unchanged until 1914.

By 1832, the drummers had ceased wearing coats of the colour of the regimental facings, and the "bands of music" were first dressed in white cloth, and bandsmen continued to wear white coats (tunics after 1855) until the first issue of the scarlet cloth in 1873. When the band also were changed from white to scarlet, the Infantry at this issue of clothing also received the first issue of the universal button, as it was called—that with the royal arms upon it, and regimental buttons for the rank and file of the Infantry became a thing of the past. The soldiers' chacos were made of black felt, the officers' of beaver silk (similar to the civilian topper). The chaco tuft, or ball, was of worsted, white for Grenadiers, two-thirds white and one-third red for the battalion companies, and green for the light company; but up to about 1846 the Grenadiers wore the old-fashioned Grenadier's cap covered with black fur, with a white goat's hair plume on the left side. The shape of the chaco altered to accord with the shape of the silk hat as worn in private life; in 1837 they were wide at the top, but afterwards the chaco became quite cylindrical. The earlier patterns of chaco were fastened by a broad leather strap covered by a chain, or by brass scales, and tapered under the chin. The men wore cross belts, the pouch belt passing under the breastplate, which fastened the bayonet (often called the sword) belt, from the time when the men were equipped with sword and bayonet, both



being carried on the same belt. Sergeants of the Light Company, and all sergeants in Light Infantry corps wore also a chain and whistle on the bayonet or sword belt.

Besides the many other regimental differences of facings, buttons, etc., the drummer's lace was of a different pattern in every regiment until the issue of the scarlet tunic in 1873, when a universal pattern was adopted. The writer remembers seeing the pattern card of the drummer's lace in the clothing department some years ago, and, writing now from memory, he believes no two regiments used the same pattern.

Before going into any details regarding the officers, I would like to remark here that, in ordinary conversation, the swallow tail coats, both of the officers and men, were called "coatees," though they are always denominated coats, in the dress regulations. The dictionary suggests the word is a diminutive of coat, and is used for a coat with short tails. If this is a correct interpretation of the word, then "coatee" should more properly be applied to the short-tailed coats worn by the Cavalry and the Highlanders.

The officers wore scarlet cloth, though the men were dressed in red; the officers' coats being double breasted in the Infantry, the men's being single breasted and braided with white; and this extreme difference must have made the officers very conspicuous, though not so much so as during the Afghan and Punjab Campaigns, when the officers in the Infantry wore their blue frock coats with the chaco.

The Infantry officer's sword was, in 1837, both his weapon and, together with his sash and epaulettes, the symbol of his rank. The sword blade was altered some little time before 1848; the earlier pattern blades were not fluted, but were made of thin steel with a strengthening bar up the back. These blades were found to be unsatisfactory, being easily broken, and several officers lost their lives from this cause during the Afghan and Sikh campaigns. The slightly curved, fluted blades then introduced lasted until 1898, when the straight bladed thrusting sword was adopted.

The officers' sword knot was the same for all occasions—a gold lace strap with a rectangular shaped tassel of gold bullion fringe, similar to that of the epaulettes.

There were three clear and conspicuous outward indications of a commissioned officer; namely, his sword with the gold lace knot, his epaulettes, and his sash. These were not worn by any non-commissioned officer, except the sash, which was of a different composition and pattern. (Warrant officers did not at this period exist in the Infantry.)

The officers of the Foot Guards wore epaulettes, and their double-breasted coats were ornamented with gold embroidery of regimental pattern, the men also wearing double-breasted coats of scarlet cloth without braiding across the breast. The officers of the Infantry also wore double-breasted coats (the men, as before mentioned, being in red single-breasted coats braided across the breast with white lace); in some regiments the buttons were placed equidistant, in others in pairs;



the gold lace was of regimental pattern, but in the 1st Royals, the 50th, 51st, and 85th, gold lace was not used, the coats being embroidered in a regimental pattern. The pocket flaps or lappels in the skirts were laced up to 1848, when they were abolished because full dress coats had been taken into wear at mess, and it was found the wear and tear of the pocket flaps became too great. The cause of the coats being required to be worn at mess was that an officer had refused to be placed under arrest by the adjutant, who was wearing his shell jacket open with the collar turned down, and was without his sword, to which the culprit objected as not being proper uniform. This case, it is believed, caused it to be laid down that mess was a parade, and to strengthen the dictum, officers were ordered to appear at this parade in full dress. The shell jacket with treble twisted gold shoulder cords (similar to those now worn by R.E. officers) was worn on undress parades, and had also been worn at mess unbuttoned, with collar turned down, showing thereby the black silk collar lining and, in most corps, a buff-quilted silk lining to the jacket, a very convenient and comfortable mess kit. It was, therefore, not very long before it was reintroduced, and, it is noticed, the Essex Regiment still show the black silk collar lining of the old shell jacket in their present mess jacket. There were no rolled collars of facing cloth in those days; this is a modern innovation, and seems to have been copied from the mess jackets adopted by the Foot Guards.

An officer joined the service with three coats besides his cloak or great coat, namely the full dress coat, the shell jacket and the blue frock coat.

The sleeves of the great coats were made to go over the epaulettes, and for this purpose there was no shoulder seam, but the sleeve started from the bottom of the collar, and was cut very full over the shoulder.

The trousers were of grey Oxford mixture, or blue, and in summer white washing trousers were worn, and these last continued to be worn by the Marines for many years after they were abolished in the Army.

The sash was worn round the waist and tied on the left side towards the front, (except in certain cases mentioned later on).

The chaco (or shako) was worn in full dress and, on some occasions, with the blue frock coat. The forage cap was usually worn with the blue frock, and it was always worn with the shell jacket.

The undress sword belt was worn round the waist, and in most regiments was made of black leather.

The flank company officers wore wings instead of epaulettes; the light company officers wore also a chain and whistle on the full dress sword belt; also, the centre of the chacoplate was altered, a grenade or bugle being placed there, together with the number. The breastplate and the buttons were not altered. A grenade or a bugle was placed upon the shoulder knot of the shell jacket and upon the shoulder scales of the blue frock; the forage cap had an addition of a grenade or bugle over the number.

The flank company sash was substituted for the ordinary sash. This sash was of narrower crimson silk net, with cord ends finishing up with tassels. This sash was tied at the back, between the two skirt buttons, the ends brought round the right side, and the tassels hung in front on the buttons; some regiments wore these tassels high up on the breast, others quite low down, just above the sash.

There were no regiments in the Infantry of the Line with the title *grenadier*, but the Fusiliers have taken this place. There were only two regiments of Fusiliers raised as such, namely the 7th and the 21st:—(the Scottish are, however, an older corps than the English), and these received their name from being armed throughout with fusils, instead of the proportion of pikes and muskets used in the other Infantry corps.

The 23rd received the title of Fusiliers as an honour or title of distinction, on the accession of King George in 1714. It may, therefore, be fairly surmised, the regiment or, at any rate its new Colonel, was *whig*. This title was a distinction only, and did not entail any alteration of the regimental equipment. The only thing noticeable about a Fusilier regiment in these latter years, besides the grenadier caps, was that they usually paraded with about double the number of drums, as was usual in ordinary corps.

¶ In the reign of King George IV., a great Irish grievance was brought to light, in that there was no Irish Fusilier Regiment, and there seemed every possibility at first that the 18th, the senior Irish regiment, would be selected for the distinction; but there were cross currents, and it is believed the matter died down for a time. Then it was resuscitated, and through the influence of Lord Gough, and the fact that the 87th were the Prince's Irish Regiment and were furthermore a very distinguished corps, together with the fact that the 18th had seen very little service in the Napoleonic wars, caused the die to be cast in favour of the 87th, so they became the 87th Royal Irish Fusiliers. Having admitted the claims of the 87th to the distinction, it was considered to be impossible to ignore the very special claim of that splendid corps "the Fighting Fifth" to a similar honour, and so the 5th became Fusiliers the year before Queen Victoria came to the throne. The 5th had been granted the distinction of wearing Grenadier's caps after the action of Wilhelmstahl in 1763, where, having captured the Grenadiers de France and the Royal Grenadiers, the men were permitted to exchange their hats for the French Grenadier caps, and were, therefore, considered to be a corps of Grenadiers, though without the official title.<sup>1</sup> This completed the number of the Fusilier regiments as they existed in 1837.

The Light Infantry have a later origin. There were two or three Light Infantry corps raised for service in the American War, but at its

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<sup>1</sup> The drummers of the 5th were clothed in white (instead of in gosling green, the facing colour), probably in memory of this incident in their history, and this may have been the precursor of the white clothing of all the "bands of music" in the infantry, which was carried out in the early period of the reign of King William IV.

close they were disbanded, though there is no doubt the efficiency of the American sharpshooters had made a great impression upon the British Generals, and it may be said this war was the origin of the Light Infantry in the British service, as it was also the cause of the abolition of the spontoon as a weapon for officers.

The only battalion at present existing which was raised as Light Infantry, is the 90th. This battalion, with the Jaeger battalion of the 60th Royal Americans, were the first to be trained as Light Infantry.

The following are the Light Infantry Corps as they existed in 1837, together with the dates on which they attained the distinction :—

	Year.
13th 1st Somersetshire Light Infantry - -	1822
43rd Monmouthshire Light Infantry - -	1805
51st 2nd Yorkshire West Riding Light Infantry	1809
52nd Oxfordshire Light Infantry - -	1803
68th Durham Light Infantry - -	1812
71st Glasgow Highland Light Infantry - -	1809
85th Bucks Volunteers Light Infantry - -	1808
90th Perthshire Volunteers Light Infantry -	1794

The 32nd did not obtain the distinction till 1858, as a reward for the defence of Lucknow.

There were two rifle regiments in 1837, namely the 60th and the Rifle Brigade. The 60th were raised as the Loyal Americans, a name shortly to be changed to that of Royal Americans. They were dressed in red with blue facings and silver lace. At the close of the eighteenth century they received a German Jaeger battalion (armed with rifles), which as the 5th Battalion 60th went through the Peninsular War. The whole corps did not obtain green jackets till 1816. The Rifle Brigade were known as the 95th Rifles when first incorporated from the light companies of several regiments; they also were armed with rifles, and wore green jackets from 1800. The officers of these two rifle corps wore a uniform braided like the Hussars, with black braid and with the Hussar pelisse hanging from the shoulders. Their sombre appearance was relieved by silver chains and whistle and other mountings on the pouch belt, and by a crimson flank company sash round the waist with the tassels looped up in front. They wore a chaco with a black tuft and bronze ornaments.

Light Infantry and Rifle Corps do not carry drums, nor do the Rifles possess colours; the bugle major and the buglers taking the place of the drum major and drummers. Also it used to be customary to call the bugle calls, horns, as for instance, the first bugle call for mess was called the first mess horn.

The Highland Division of the Army in 1837, was composed of the 42nd, 71st, 72nd, 78th, 79th, 92nd, and 93rd, Highlanders (the 71st being Light Infantry). These seven battalions were more than the Highlands could supply with recruits, but the rule seems to have been that only those born north of the Tweed could be enlisted, thereby

broadening the area for recruiting. Besides the above mentioned regiments, Scotland had to supply recruits for the four grand old Lowland regiments, namely the 1st Royals (of two battalions), the 21st, 25th, and 26th, and of later date the 73rd, 74th, 75th, 90th and 91st, making 17 battalions in all, all of whom were supposed to be recruited in Scotland, and this was more than the country could support. There were, therefore, a fairly large number of Irish in some of these corps, together with a small number of English.

The 25th, originally the Edinburgh Regiment, has had during a portion of its existence the unique experience of becoming an English regiment, and then reverting once more to the Scottish title of The King's Own Borderers. It is presumed the badge of the King's crest, which the regiment now possesses as one of their badges, must have been granted while they were the Sussex Regiment, for it is the crest of England, nicknamed in the 25th the "*dog and bonnet*." It is considered, the King's crest granted to a Scottish corps should be the crest of Scotland, namely "upon the crown, a crowned lion sejant, affronté, in the dexter paw a sword, and in the sinister a sceptre."

The following are the names of the tartans used in the Highland regiments, including the 74th and 91st :—

The 42nd used their own special tartan.

The 71st used the Mackenzie tartan.

The 72nd used the Prince Charles Edward tartan (a modification of the Stewart).

The 74th used the Lamont tartan.

The 78th used the Mackenzie tartan.

The 79th used the Cameron of Erracht tartan.

The 91st used the Campbell of Cawdor tartan.

The 92nd used the Gordon tartan.

The 93rd used the Sutherland tartan.

The difference between the Sutherland and the 42nd tartans is not apparent.

The Highland regiments, more than any others, seemed to possess special patterns and regimental designs for nearly every article of equipment and wear. Even the spats were a special make in the 42nd, and the 92nd had black gaiter buttons. The origin of red as the colour of the hackle feather worn by the 42nd has been explained in full by the late Archibald Forbes, the information being obtained presumably from Colonel Wheatley's Memoranda.

Of the Highland regiments, the 42nd, 78th, 79th, 92nd and 93rd wore the full Highland dress, kilts, sporrans, etc. The 71st wore trews, with a chaco with a diced border, and black plaited cord cap lines. The 72nd wore the feather bonnet as worn by the kilted regiments, but with trews. The 74th were designated Highland in 1845, and the 91st in 1865, wearing trews, both regiments having been Highlanders at the end of the eighteenth century. The 91st, however, did not receive an issue of the white waistcoat, which other Highland regiments, as also the Guards,

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have continued to wear until recent times, a relic of the waistcoat worn under the voluminous coats of the early days of the eighteenth century.

The Highland pattern coatee was short in the skirts, very similar to that worn by the Light Dragoons.

It may be interesting to note that the coats of the Heavy Cavalry were single breasted, and their frock coats were double breasted, whereas the Infantry coats were double breasted and their frock coat single breasted, shoulder scales being worn on each frock coat; when shoulder scales were abolished in the Infantry, the frock coat was altered to double breasted.

Coats continued to be worn until 1855-56.

The Battle of the Alma was the last occasion on which a British Army has gone into action in full dress. The coats and epaulettes were even then already doomed, for a circular memorandum dated 18th August, 1854, gave notice of a change of uniform.

The clothing of the 1st April, 1855, issued to a portion only of the infantry, was the first tunic: this tunic was double breasted, the officers wearing the front lappels turned back in review order, to show the facing cloth.

Circular memorandum of the 28th March, 1856, ordered an altered tunic, single breasted, and this was issued to the Army in 1857-58. The double breasted doublet for Highlanders had lozenge-shaped buttons, but with the issue of the single-breasted garment, the button was altered back again to the circular shape, as it was found the angular edges of the button cut the cloth very quickly.

None of the special distinctions appertaining to the grenadier or light companies were continued with the tunic, only the name was retained until 1859, when the flank companies were finally abolished. But the writer can remember, flank company officers retained on the shoulder cords of their shell jackets the grenade and bugle, as late as 1862, if not later. It was probably a case of being permitted to wear out the old pattern uniform.

The second tunic of 1857 lasted ten years. It kept up the old tradition of laced buttonholes and lappels on the sleeves and back skirts, and it is a matter of regret that the tunic of 1868 should have completely broken with the old tradition, and started on a new and feeble description of ornamentation for the purpose of showing the wearers' rank.

The Militia were not called up for training during the early period of Queen Victoria's reign, and the permanent staff of the Shropshire Regiment (which Militia I take as a case in point) had been reduced to one adjutant and six sergeants in 1850. During the Crimean War and the quelling of the Bengal Mutiny, all the Militia seem to have been embodied for regular duty, and in some cases were not sent back to their respective counties to be disembodied until 1859.

Though there were only three or four regiments of Militia rejoicing in the title Fusiliers, there were a very considerable number of regiments with the titles of Light Infantry or Rifles. Indeed, to such an extent were

these distinctions showered broadcast that they even lowered the prestige and reduced the value of similar titles which had been granted to regular regiments as a reward for their splendid achievements. It is not known for what services, if any, these titles were given, but it cannot be argued that any Militia corps could have been so deserving of the title, say, of Light Infantry, as were the 43rd, or the 52nd. Then, also, Royal titles were much too freely given, and there was one case in which it would seem a Royal title was incorrectly granted. There was a Militia regiment with this title, "The Prince of Wales's Royal Renfrew Regiment." Surely the title should have been "The Duke of Rothsay's, etc." This matter would not have been alluded to, but that it is now a thing of the past, and may be classed as an antiquarian subject of military interest, because with the great amalgamation of the Infantry of the Line, the Militia and the Volunteers in 1881, all these titles have been absorbed into those of the Regular Army.

In the case of the 27th Inniskillings, it would seem this old corps not only had to bear the shock of being amalgamated with a Madras infantry corps, only dating from 1854 (a regiment in swaddling clothes compared with the 27th), but also this unfortunate regiment was, it may be said, absorbed by one of its own Militia battalions, the Royal Tyrone Fusiliers. The buff facings were altered to those of the Militia, and also the title, except that the word *Tyrone* was changed for *Inniskilling*.

This Tyrone Militia was the corps that furnished the Castle Guard in Dublin in 1801, on the day the Union was proclaimed, and it is believed the regiment received as a badge in memory of the occasion, *the Star of the Order of Saint Patrick*.

In looking at the old Militia Lists, it will be noticed that there were several Lieutenants in these lists, whose dates of commissions showed they must have often been passed over for promotion. This was caused because these officers did not possess the requisite property qualification in the county to enable them to be promoted. The property qualification as it existed at the time the Militia were embodied in 1855, was as follows, the estate in each case being in the county where the Militia was raised :

A Colonel had to possess an estate of £1,000 a year, or be heir-apparent to £2,000 a year.

A Lieut.-Colonel had to possess an estate of £600 a year.

A Major " " " £400 "

A Captain " " " £200 "

A Lieutenant " " " £50 "

(or personalty value £1,000).

An Ensign " " " £20 a year

(or personalty value £400).

This property qualification continued in force until 1869, when it was abolished.

The English Militia were first raised under the Ballot Act in 1760, and the first regiment constituted seems to have been the Dorsetshire. The Militia was supplied with recruits through the agency of the ballot, until 1815. In 1855, when the Militia were embodied, the Ballot Act

was suspended and the Militia were enlisted for short terms of service, with re-engagements for so long as a man could pass the medical examination. The Scottish and Irish Militia were not raised till the commencement of the French War in 1793.

The Militia, in 1855, wore a similar uniform to that of the Regular Army, except that the buttons and lace were of silver, as also were all the ornaments.

During the reign of King William IV., all the regiments of the Regular Army wearing silver lace, buttons and other ornaments, were ordered to adopt gold lace and gilt buttons, etc., and also in the Militia those regiments wearing gold lace and gilt buttons were changed to silver lace, etc. The writer is unable to say how many Militia regiments wore gold lace, though he is able to state that the Shropshire regiment did so, and no doubt there were many others.

Although the Infantry of the Line had all been harmonised into gold lace and gilt buttons (as far as the officers were concerned) before 1837, it may be of interest to the readers of this *Journal* to have an analysis of the facings, descriptions of the lace, and position of the buttons of the line regiments as they were in the period about 1820.

The facings, lace and position of the buttons of the Infantry of the Line :—

Blue facings	{	With silver lace	-	2nd and 86th.
		With gold lace	-	1st, 4th, 7th, 8th, 18th, 21st, 23rd, 25th and 42nd.
Green facings	{	With silver lace	-	5th, 11th, 19th, 24th, 45th, 54th, 63rd, 66th, 68th and 69th.
		With gold lace	-	36th, 39th, 49th, 51st, 55th, 73rd, 79th, 87th and 94th.

(There were almost as many shades of green as there were regiments to wear them.)

Black facings	{	With silver lace	-	50th.
		With gold lace	-	58th, 64th, 70th, and 89th.
Red facings	{	With silver lace	-	33rd, 41st and 76th.
		With gold lace	-	53rd.
Purple facings	-	With silver lace	-	56th.
Orange facings	-	With silver lace	-	35th.
Sky-blue facings	-	With silver lace	-	97th.
White facings	{	With silver lace	-	17th, 43rd and 47th.
		With gold lace	-	32nd, 59th, 65th, 74th and 98th.
		With silver lace	-	3rd, 14th, 31st, 52nd, 61st, 62nd, 71st, 81st.
Buff facings	-	With gold lace	-	22nd, 27th, 40th, 48th, 78th and 90th.
Yellow facings	{	With silver lace	-	6th, 9th, 10th, 13th, 15th, 16th, 20th, 26th, 28th, 29th, 30th, 34th, 37th, 38th, 44th, 46th, 67th, 72nd, 75th, 77th, 82nd, 84th, 85th, 88th, 91st, 92nd, 93rd, 95th, 96th and 99th.
		With gold lace	-	12th, 57th, 80th and 83rd.

*Arrangement of the lace and buttons.*

Regiments whose buttons were equidistant and the buttonholes *straight-laced* :

2nd, 7th, 8th, 10th, 16th, 27th, 31st, 44th, 58th, 61st, 66th, 70th, 71st, 74th, 77th.

Regiments whose buttons were equidistant and the buttonholes *looped* :—

4th, 5th, 23rd, 25th, 30th, 38th, 41st, 42nd, 49th, 59th, 72nd, 73rd, 78th.

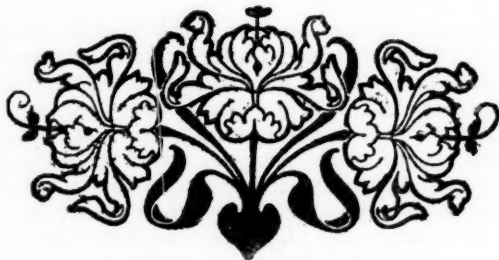
Regiments whose buttons were *in pairs*, and the buttonholes *straight-laced* :—

1st, 3rd, 6th, 9th, 13th, 14th, 15th, 17th, 18th, 19th, 20th, 21st, 24th, 26th, 28th, 29th, 32nd, 34th, 35th, 36th, 37th, 39th, 40th, 43rd, 46th, 47th, 48th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 60th, 62nd, 63rd, 64th, 65th, 67th, 68th, 69th, 75th, 76th, 79th, 80th, 81st, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 96th.

Regiments whose buttons were *in pairs* and the buttonholes *looped* :—

11th, 12th, 22nd, 33rd, 45th, 82nd.

*Forsan et hæc olim meminisse juvabit.*



## THE GERMAN AIR FORCE ON THE WESTERN FRONT.

By WING-COMMANDER B. E. SMYTHIES, D.F.C., R.A.F.

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1. IN theory, the squadron pilot in war may be expected to have a considerable knowledge of the enemy air forces opposing him; to carry a mental picture of their dispositions, to realise why their activity is considerable or the reverse, and to have some understanding of their organisation.

In practice, it must be admitted that such information does not percolate freely from Intelligence. Perhaps, in the future, the flying officer will follow with interest all enemy movements, but in the past he was contented enough to recognise the type of his opponent's machine, and to register, when occasion offered, his skill in combat.

It is, nevertheless, useful to study in retrospect, however briefly, German air activity in the war 1914-18, to determine whether their difficulties corresponded to ours, and to ascertain how our former enemy regarded his opponents.<sup>1</sup>

### 2. *The German Advance.*

At the outbreak of war, Germany mobilised for co-operation with the Army 34 Field Flights and 7 Fortress Flights, 232 aeroplanes in all, with flying *personnel*. These detachments were attached to various army headquarters and G.H.Q. Great hopes of the value of air reconnaissance were not, however, entertained; it was thought that, after a few weeks, not a single aeroplane would be in the sky.

The High Command did not appreciate the value of aircraft, and in a critical situation it frequently happened that the Air Force received no orders at all; unless the Flight Commander made personal *liaison* with the G.O.C., information about the situation was completely lacking, resulting in doubt as to which was friend and which was foe.

In spite of these handicaps, the air reports sent in astonished the General Staff; at first they awaited confirmation from other sources, but with increasing skill of the observers, and greater confidence in their ability, air reconnaissance came to be valued at its true worth.

The actual landing of the British Expeditionary Force was not observed by German aeroplanes, since it took place beyond their radius of action. Airships could easily have carried out this strategic reconnaissance, but were not used for the purpose.

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<sup>1</sup> Quotations, usually summarised, in this article are from "Deutschlands Krieg in der Luft," by General von Höppner, published 1921. The author has since died.

The Belgian retirement and the retreat to Antwerp were, however, reported in detail; on 21st August, English troops were first reported from the air, though on the following day the presence of the whole Expeditionary Force on the line Condé-Binche remained concealed. At 8.15 a.m. on 24th August, an aeroplane of the IXth Army Corps reported detailed English movements, clearly establishing the fact that no retreat to Maubeuge was contemplated. Unfortunately for the Germans, a later air report was received on the evening of the 24th, stating that a general retirement into the fortress was in progress. This erroneous report received credence; counter orders and forced marches ensued.

German strategical reconnaissance was in these opening stages generally good; in tactical and battle reconnaissance, the superiority of the French is admitted.

A German estimate of the Royal Flying Corps at this period reads as follows :—

“ The English Flying Corps at the beginning of the war played merely a nominal rôle, as insignificant as that of the Russians.”

A large proportion of aeroplanes flown by the R.F.C. at the time were of French type, and the work they did was probably not credited to the right quarter; the opinion quoted was to undergo modification as the war progressed.

### 3. *Winter 1914-1915.*

After the first few weeks, a marked change in the German attitude took place. What had seemed incredible in times of peace had actually happened: aircraft had almost entirely replaced cavalry as a means of distant reconnaissance. Money became available to increase the air arm, and the first of successive expansion programmes was commenced.

The aeroplanes available at this time consisted of Taube, Albatros, Aviatik and L.V.G.; the first of these soon proved unsatisfactory, owing to its low ceiling.

The importance of air photographs had not previously been realised; the value of a camera as an aid to reconnaissance now began to be appreciated, though the development which occurred later was not yet foreseen. The use of wireless to assist artillery had been considered in peace time, but had been rejected on the ground of danger to the pilot. War dispelled this idea, and in December 1914, a wireless transmitter was used for the first time on the front. In February 1915, with improved apparatus, the first really successful shoot was carried out. (W/T for artillery co-operation was first used by the English on the Aisne.)

The development of bombing proceeded apace. At first, bombs were thrown over by hand from single machines, but the necessity for concentration of force was kept in view and in November, 1914, a



combined bombing attack by six flights was carried out under Major Siebert in the neighbourhood of Ostend.

If the advance of the German right had been continued to Calais, strong bombing attacks would have been made from there against England; these were forced, however, to await the development of long-range aeroplanes.

The armament of German machines consisted at first of pistols and carbines, even though these had been proved inadequate in 1912. From October 1914, the arming of Allied aircraft with machine-guns became general, and the inferiority of the German equipment was clearly shown. Their machines were helpless and had to turn tail when an enemy appeared.

The effect of losing air superiority was now seen; the infantry observed how the enemy spotting machines flew over them unhindered, while their own were apparently incapable of action. When an attack was made, the German troops complained bitterly that they were plastered by artillery, while air co-operation for their own guns was lacking.

In the first big operations of 1915, in the Champagne, German aircraft took no part and were unable to discover the great strength massed against their front.

The spirit of the air *personnel* was low, and urgent steps had to be taken to raise their *morale*.

#### 4. *Air Organisation, 1915.*

After the first few months of position warfare, the importance of the air arm was universally accepted. We can observe among the chief protagonists, that struggle for air supremacy which was to continue until the Armistice.

In Germany, by a Cabinet Order of March, 1915, the Chief of the Air Force was given a share in the responsibility for production of aircraft. New factories, such as Ago and Pfalz, were opened up, and the existing ones were enlarged. Money, material and men were forthcoming, and contact was established between the workers and officers flying on active service. More training centres also were formed, the general rule being to utilise N.C.Os. and men as pilots, with officers as observers.

A brief mention might here be made of the development of Naval aircraft. These were entirely divorced from those working with the Army as regards production, *personnel* and training. Seaplane stations were established in Borkum, Norderney, Sylt and Wilhelmshaven for the purpose of reconnaissance and protection of minefields; others were formed later in the Baltic for operations against the Russians, culminating in 1917 with the capture of Riga and Oesel.

Zeebrugge and Ostend were also utilised as bases for patrols over English shipping in the Channel, and for air fighting against English aircraft, "the most dangerous enemy of our U-boats."

In the spring of 1915, an invention, attributed to Fokker, by means of which a machine-gun could fire forward through the propeller, was first utilised. Two-seaters, with 160 h.p. Benz and Daimler engines, had one such gun for the pilot, firing forwards, while the observer sat behind with a gun on a circular mounting. Thus equipped, the capacity of the aeroplane both for offence and defence was materially increased, and its military value made correspondingly greater.

In June and July, Fokker monoplanes were first used. They were at first forbidden to fly over the lines, in order to avoid discovery, but later this ban was withdrawn. Their employment, coupled with the enhanced fighting power of the two-seater, completely altered the air situation, and the prestige of the Air Force was restored. One of the (German) Army Commanders was able to report: "The day after a Fokker flew over our front, all enemy aeroplanes retired well to the rear of their own lines."

Reconnaissance machines, equipped with improved cameras, were able to work in comparative safety; air maps were produced, and the fog of war was partially dispelled: ample warning was now available of impending attacks.

During 1915, kite-balloons were almost the only means used for the observation of artillery fire. The use of wireless in aeroplanes had introduced several difficulties, and the batteries' faith in this method was small. Special artillery flights, one for each division, were formed to ensure a better understanding. Of these there were four in the summer of 1915, but by the autumn of 1916 their number had increased to 46.

It must be admitted that Germany's difficulties at this time were considerable, as regards supply of aircraft. Fighting was in progress on several fronts, and the capacity of her allies to provide this essential arm were negligible. At the beginning of 1915, Austria had 17 aeroplanes, and proposed to increase this number by 10 a month. Squadrons would frequently not possess a single serviceable machine.

The Bulgarian air force was just starting, and had to be equipped and trained, while Turkey entered the war without a single aeroplane fit for service. In October, 1915, 24 German aeroplanes flew from Hungary to Adrianople without intermediate landing, fought at the Dardanelles until the Gallipoli evacuation, and thence proceeded to Iraq to help in the siege of Kut-el-Amara. One gathers that service with the Turk was not universally popular. They could see the necessity for an aeroplane, but not for any spare parts—an error which is by no means unique.

##### 5. *Verdun and the Somme.*

The expansion of aircraft construction during the winter enabled both sides on the Western front to employ, during 1916, far stronger air forces than hitherto. It was really during this year that the methods adopted until the end of the war were first tried out.

For co-operation with the attacks on Verdun, about 200 German

machines were collected at the beginning of March; these included 30 to 40 single-seater fighters, organised in flights about 10 strong.

When the attack was first made, the Germans could at first justly claim a mastery in the air, and their troops had little reason to complain. As yet they had not realised the fact that a complete blockade of enemy aeroplanes is not feasible, owing to their very property of three-dimensional movement. To gain freedom for the troops from air interference, defensive patrols of about six machines were instituted, offensive measures being chiefly confined to day bombing. Before the lesson had been learnt and tactics improved, the storm burst on the Somme; the German Air Force was now to undergo the most arduous trial it had yet experienced.

Prior to the attack, air photographs had made it perfectly clear that a serious offensive was contemplated. The thought that such an attack was improbable while the French were heavily committed elsewhere, and the reluctance of the German Staff to withdraw air units from Verdun, outweighed the evidence of facts; even after the attack had begun, the Germans could only assemble on the Somme front about 120 aeroplanes, of which some had recently come from the Eastern theatre, and others had just been re-equipped, while the best fighters, both men and machines, had not been sent up. On 24th June the bombardment reached its greatest intensity. Like the Germans at Verdun, the Allies had concentrated on the Somme, prior to attack, what was then an unprecedented number of aircraft. The result was never in doubt; the German air force was overwhelmed, and before reinforcements could be hurried up, the French and British had complete freedom of action as regards artillery observation and reconnaissance.

The Germans had attempted to utilise low-flying aeroplanes for infantry co-operation at Verdun, but it had not been very successful. On the Somme, our victorious troops attacked, with a feeling of security from air observation, while, simultaneously, low-flying attacks were launched against gun positions and the German infantry. The moral effect on the latter was very great, though the actual numerical losses were small. The troops felt themselves followed about by enemy eyes, and utterly helpless.

The moral effect of our ascendancy in the air was probably greater during the Somme battles than at any other time during the war. The unrest of the German fighting units increased, and they firmly believed that their enemy used armoured aeroplanes, against which their shots were useless. Instead of attacking low-flying aircraft with machine-guns, they would rush to cover, directly an aeroplane appeared.

Such aeroplanes as the Germans had were still often used for defensive patrols, even those allotted to the infantry and artillery for observation being employed to protect these troops from enemy aircraft. Their infantry, deprived of artillery support, became obsessed with the idea that the enemy superiority in aircraft and guns was overwhelming. German machines flying behind their own lines were often regarded as

hostile; recognition lights fired on the homeward journey would be mistaken as the signal for a British attack, and the tale would reach the German pilots on landing.

Air observation was no longer asked for, so great was the demand for protection, and a profound mistrust of their own air force pervaded the German army.

The most ridiculous fairy tales about the skill of French and British pilots were freely circulated, until they became fantastic; even some of the higher staffs came to believe them. The impression grew that the German defeats on the Somme had been brought about by their failure in the air.

After withdrawal, conditions slowly improved, since the effect of artillery fire was less marked. In August, aeroplanes were equipped with 220 h.p. engines, which brought about a marked improvement.

When contemplating the *morale* of the German in times of distress, it is perhaps helpful to recall our own under less rigorous circumstances. Requests for defensive patrols, tales of armoured aeroplanes, super-machines roving about blackening the sky, British markings used by the enemy—memory stirs faintly and passes on.

In October 1916, the Germans sustained a great loss in the death of Boelcke, their finest fighting pilot. There can be little doubt that the example of the "aces," such as Immelmann, Boelcke and Richtofen, acted as a stimulant; although, by official advertisement, encouragement was given to a good type of officer to apply for the fighting branch, the final result was that many air units were "milked" in order to support the reputation of some particular squadron.

The absence of publicity accorded to British fighting stars was probably more suited to the British temperament; by not forming "circuses," a higher general fighting standard was maintained. In the Royal Flying Corps, the necessity for inducements to fight on single-seaters never arose.

One result of the Somme fighting lasted throughout the remainder of the war: namely, the transference of the greatest air activity to the English-German front. The Royal Flying Corps, which in 1914 consisted of about 50 aeroplanes, had by 1916 been enormously increased.

"Compared with the energy of the English, who carried on regardless of cost, the French aviation corps from now on suffered from an obvious stagnation. After the Somme, we were compelled to concentrate the majority of our pursuit flights against the English.

"Owing to their numbers, and their reckless but sporting spirit, the English were hereafter our most dangerous opponent in the air, and to that front was allotted the pick of the German air forces."

#### 6. *Winter Programme, 1916-1917.*

The situation which had arisen in the Somme battles among German aircraft had been very serious, and drastic measures were called for. The most important was the appointment, in October, 1916, of General von Höppner to supreme command of the Air Force, the former head serving as his Chief of Staff.

All army aircraft operations, *personnel*, training and production and all anti-aircraft measures in Germany and in the field were subordinated to this one commander.

Methods of production and training were improved, equipment was brought up-to-date, and the organisation of air force units in the field was remodelled.

The dual control by army and navy of technical development still remained unsatisfactory. Both worked on parallel lines but without co-ordination. Duplication of *personnel*, material and money resulted, while the feeling of rivalry between the two branches increased. The development of the aircraft industry, on which so much depended, could not be satisfactory while two completely independent services were in a position to formulate demands. "A single will and a single policy were essential."

The winter programme, up to spring, 1917, was as follows :—

*Pursuit Flights*, 36. The first four had been used on the Somme. The Fokker was now outmatched and was replaced by the Halberstadt and Albatross, D type, armed with two machine-guns, firing forward. The strength of each flight was raised to 14, with 4 spare aeroplanes.

*Artillery Flights*, 96. Used for army co-operation. The strength of each flight was raised from 4 to 6 aeroplanes. There were, in addition, 44 flights employed in other theatres, or for distant reconnaissance on the Western front.

*Protection Flights*, 27. Organised in four squadrons. These consisted of two-seater fighters, whose duty it was to enable observation machines to work unhindered, thus freeing pursuit flights for purely offensive action.

*Battle Flights*. Three squadrons, each 6 flights of 6 two-seaters, used for short-distance bombing; used later for low-flying attacks.

*Bombing Squadrons*. Four squadrons, each of 6 flights, 36 aeroplanes per squadron. Multi-seaters for long-range bombing.

12,000 new recruits were enrolled in the air service, and specialist training schools for officers largely increased. The organisation of aircraft depôts and parks was enlarged and improved.

During the war, 36 aeroplane and 21 aero-engine factories were in action for construction, with a further 33 used for repairs.

It will be observed that units had now become ear-marked for



special duties, and that the number of aeroplanes in each unit tended to increase. A year later, the strength of artillery flights was still further raised to nine machines.

Pursuit flights were supposed to fight in formation, and the number in each unit had to form a sufficiently strong force to encounter hostile patrols with success.

A similar increase can be observed in the original establishment of 12 aeroplanes for squadrons of the Royal Flying Corps; single-seater units were eventually raised to 18, and corps squadrons to 24 machines each.

#### *7. The German Air Ascendancy, 1917.*

By 1st April, 1917, the winter programme had been, in the main, completed, and the German Air Force reached its maximum efficiency.

The attacks of the British at Arras and of the French at Rheims did not come as a surprise; preparations for them had long previously been observed by air reconnaissance. Almost daily, confirmation was received; the erection of new huts for thousands of troops, preparation of new aerodromes and other unmistakable signs of the impending offensives, enabled counter-preparations to be made.

During April, air activity was intense; the struggle for supremacy devolved chiefly on the newly-formed pursuit flights, who acquitted themselves well. On Richtofen, the mantle of Boelcke had fallen; the spirits of the German airmen rose high and the confidence of their ground troops was fully regained.

The results of these battles in the air were indeed sufficiently obvious. For the moment outmatched, the English, after amazingly heavy losses, restricted their activity; a French Staff Officer who was captured, had noted in his diary that the German fliers had become very bold, that they were carrying out low-flying attacks with vigour and for the time were undoubtedly masters of the air.

German reconnaissance and observation aeroplanes enjoyed an unwonted immunity from attack; the veil of war was lifted.

During the summer of 1917, we can see the slow swing-back of the pendulum; the efficiency curve was never again to rise so high in favour of the German Air Force. Against Bristol Fighters and D.H. 4s, the Albatross could do relatively little; S.E. 5 and Sopwith Camel Fighters first appeared, to match their two guns against those of the German single-seater.

Long-range bombing was carried out by the Gotha squadrons. The daylight raid on London on 13th June, 1917, with 17 machines, when 4,400 kilogrammes of bombs were dropped, afforded clear evidence of the value of a good meteorological service. Consequent on upper air observations, the start was made at 10 a.m., instead of in the afternoon. After 4½ hours' flight, all machines landed safely, just before a succession of violent hailstorms.



By August, English home-defence measures had been improved, and resort was had hereafter to bombing by night.

#### 8. *Passchendaele and Cambrai.*

During the autumn, in order to repel the heavy British attacks, German air forces were chiefly concentrated in Flanders; they had been outnumbered in the opening stages, but were gradually reinforced from other armies, until there were 80 flights operating in a comparatively restricted area.

When the French attack was made on Verdun, German aircraft belonging to the Vth Army had a difficult time; pursuit flights to ease the situation could not be spared from the Flanders front.

The concentration for the British attack at Cambrai was carried out at night and was not observed from the air. The attack itself was consequently a surprise. The weather on 20th and 21st November was very foggy, so that reinforcing aircraft from the German armies had to fly at 100 to 150 feet.

The critical state of affairs which the successful surprise attack had brought about, gave the Germans serious food for thought. They wondered what would have happened if their reinforcements hurrying to the battlefield had been delayed by a determined air attack, on the roads leading to and from Cambrai town. Orders to attack these roads with British low-flying aircraft had actually been given; they could not be executed owing to the dense fog. By the 22nd it had cleared, but the opportunity for us had passed.

#### 9. *The "American Programme."*

The entry of America into the war had a great effect; German calculations as to the number of aircraft required, called for modification. It was thought that the war in the air would be greatly intensified, and in the Allied Press appeared fantastic promises of thousands of American aeroplanes, which would force Germany to sue for an early peace.

This was not taken seriously by the German High Command, but it was reckoned that by the spring of 1918 at the latest, America would have succeeded in enormously increasing the Allied air power.

To compete with the danger, instructions were sent in June 1917, to accelerate aircraft production, and what was known as the "American Programme" was put in hand. The effect of this acceleration can be judged by the number of aeroplanes produced, which was: 1915, 4,400; 1916, 8,100; 1917, 19,400.

The effects of the blockade were now being acutely felt; the difficulties of obtaining raw material continued to increase. During the winter of 1917-1918, owing to the scarcity of iron and steel, all aircraft metal was placed next after U-boats in the Construction Priority List.

10. *The German Offensive, 1918.*

In March, 1918, a very large number of aeroplanes was collected prior to the grand attack. A summarised (German) account of the air operations is given.

"On 21st March, 1918, at 4 a.m. the German artillery preparation for the grand attack commenced. The thick ground mist prevented the use of our strong air concentration and it was not till noon that the weather cleared.

"The progress of the German infantry attack could be observed from the air, and our battle flights found marvellous opportunities for low-flying attack whenever the enemy made a stand. In the evening, the village of Roupy was stormed by our infantry, after the defence had been shaken by our battle flights. Our balloons followed up the attack during the night, to within a mile of our front line infantry.

"On the 22nd also, the enemy showed little initiative in the air, probably because aerodromes in the vicinity were threatened and reinforcements had not yet come.

"On the third day of battle, our battle flights found wonderful targets in the retreating English columns; their attacks caused a stoppage during the whole afternoon on the Roman road, men rushing helter-skelter to cover, or breaking out into the open fields. On this day the air situation changed, the English machines showing a new activity, while from the South numerous French squadrons hastened up.

"On the 24th and 25th, the enemy air activity increased still more, and the work of our aeroplanes became more difficult. Our infantry began to complain of hostile bombing.

"In the attack of the VIth Army on the Lys, the same happened as in the 'Great Battle.' On the first and even the second day, we had complete air superiority; then followed hard fighting against enemy air reinforcements, and soon the infantry raised their protests, demanding protection from air attack.

"Aerodromes could not be established near the line owing to the sodden ground, and telephone communication was bad. Once again it was shown that efficient co-operation with the ground troops by aircraft is not possible when the latter are out of touch with the course of events.

"The best results were obtained when the Air Force fought with its own air weapons. On 25th April, battle squadrons attacked Kemmel Hill, in front of the storming infantry. The enemy were taken in rear, and their nests of batteries shot up. Fourteen battle flights were here operating on a front of 10 miles. A great part of our success in this battle was due to an artillery observer, who, the evening before our attack, located the majority of the enemy batteries in a new position to the rear. Our counter-battery orders were changed at the last minute, and success followed."

It may be doubted whether the claim for the success of the German low-fliers is justified. One remembers the roads in March just behind

our front, packed with vehicles and retreating troops, one of the finest targets for machine-guns and light bombs presented during the war. A concerted attack, aeroplanes returning again and again to the scene, and the shambles of Palestine might have had a precedent.

It did not happen. A casual bomb; an occasional enterprising individual coming down for low shooting, and that was all. Our air fighters, subsequently reinforced from the North, would seem to have sufficed to dissuade the Germans from coming low. It had never been a pastime for which they showed any great enthusiasm.

The analysis quoted above, of the swing of local air power in the opening stages of a big attack, is of more interest. When the front is long, and the region of attack is uncertain, even a numerically inferior force can obtain air superiority for a limited period by virtue of initial concentration. On the relative strength and efficiency of the air force engaged depends the period during which this supremacy can be maintained.

We have seen how on the Somme, in 1916, the Allies retained it throughout active operations; on the Amiens front in 1918, the Germans had it for three to four days; on the Lys for a day or two.

In their final attack on July 15th against the French, surprise was absent, and the relative strength of the combatants had materially altered. By noon of the opening day, even English and American squadrons had appeared on the scene to aid the French. On 16th July, the Allied air strength was concentrated against the Marne bridges, 60 units dropping bombs successively on the German columns.

## II. *The German Retreat.*

From now onwards, the fluctuations were to cease. German air reinforcements became increasingly difficult to supply to any threatened front; trained pilots became scarce, sufficient material was not available.

The blockade had done its work. In June, 1918, owing to the shortage of petrol, the monthly allowance for all aircraft on the Western front was reduced to 7,000 tons. Cessation of all unnecessary flying was ordered, and photographic reconnaissances much reduced. At training stations, only benzol was to be used.

At the end of August, valuable men had been withdrawn from air units, for the U-boats. The oil wells in Galicia did not suffice; those in Roumania had not been repaired sufficiently soon.

Petrol consumption was restricted to 250 litres a day for army co-operation flights, and 150 litres for battle and pursuit flights (*i.e.*, about half an hour flying per day to each machine on the strength. Flights were not, however, up to strength).

At a time when the maximum of air activity was desired, this had a disastrous effect, and high losses ensued.

It had become impossible to fulfil army demands for aircraft to withstand widely separated attacks. As an example may be cited a group of battle flights which, on a certain day in September, flew a

hundred miles from south of Laon to Cambrai, carried out operations during the British attack, and flew back the same evening. The next day, they were taking part in operations far distant, in the opposite direction.

The terms of the Armistice demanded the surrender of 2,000 pursuit and battle aeroplanes; this alone would have rendered impossible a continuance of the war.

#### 12. Conclusion.

In January, 1919, the German Air Force was officially disbanded. The farewell order of its Chief may here be cited :—

"The re-building of the German air power lies in the distant future. The memory of the deeds of her airmen will, however, endure for generations. It was youth which gave of its best to the achievement of our power in the air; to youth I dedicate the memory of those heroes who fell in the service of their country. When the German people rise from the darkness of party strife to their former heights of national unity, then German pilots will reign again, and the ancient saying will be fulfilled—

*'Exoriare aliquis nostris ex ossibus ultor.'*"



## MARSHAL LIMAN VON SANDERS' ACCOUNT OF THE SURPRISE ATTACK ON HIS HEADQUARTERS AT NAZARETH, 20<sup>TH</sup> SEPTEMBER, 1918.

(From "*Fünf Jahre Türkei*.")

ON the evening of the 19th of September, the Commandant at Haifa reported that, far and wide, no enemy was visible. At the same time I issued orders for the local protection of Nazareth. Until 3 a.m., this was found from German *personnel* from the Staff Offices, Ordnance, Mechanical Transport and Wireless and Post Office sections, which were formed into a company; for the rest of the night, from available men of the Depôt Regiment Würth von Würthenau.

The roads from Affule and Haifa were watched at the points where they reached the Nazareth plateau. During the night, no reports of any importance were received.

At 5.30 a.m. on 20th September, cries of alarm were sounded in the southern streets of Nazareth, where the High Command had its quarters and offices, and at once rifle and machine-gun fire began. The English were in the town, intent on capturing the High Command of the Army Group! How they got in has never been fully cleared up, as the outposts of the Depôt Regiment did not fall back. They were probably guided by Arabs over bridle-paths.

The English had already seized the Hotel Germania, situated about 150 yards from the Headquarters of the Army Group "Cassanova," and had taken prisoner a number of officers and clerks. A considerable number of mechanics, who were working at their vehicles, also fell into their hands.

On the heights surrounding the town on the south, east and west, numerous English machine-guns soon came into action.

Bitter street-fighting developed, in the course of which officers had to take up rifles; and the afore-mentioned company, made up of various details, occupied walls and hedges, whilst others fired from windows and balconies. As soon as the few available troops formed up and were reinforced by Turks from the various depôts, small detachments were despatched to capture at any rate the heights to the west of the town, and the remainder of the Depôt Regiment was given the same objective.

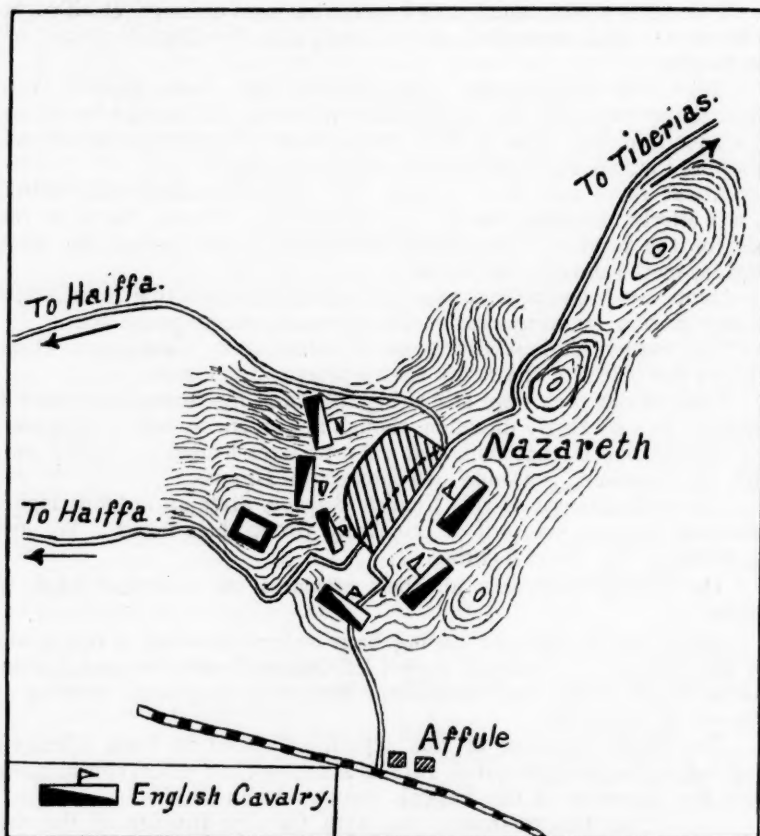
Astonishing to say, it was soon reported, that the exit from the town towards Tiberias was unoccupied. This road led, not far from the French Orphan Asylum, circuitously in steep descent to the town. It could easily have been occupied by a few troopers and machine-guns, and thus have closed the sole remaining exit from Nazareth.

Soon after the commencement of the street fighting, all hospital and commissariat details were directed along this road towards Tiberias,

and were shortly followed by those portions of the Army Group not directly under the English fire.

It was difficult next to estimate the strength of the enemy. It was at first thought to be only a few squadrons; but, to me personally, the very numerous machine-guns seemed to indicate greater numbers.

The wireless station East of the French Asylum was blown up without orders, after it had sent an urgent message to Haifa for reinforcements.



CAMPAIGN IN PALESTINE, 20TH SEPTEMBER, 1918.

Telephonic communication between the Army Group and the Armies failed immediately the attack began, because, as we learnt later, the central exchange at Affule was already in British hands.

Grievous was the loss to the High Command of the greater part of its office papers, which were set on fire during the street fighting, to prevent capture by the enemy.



A danger that the English might also close the Tiberias road, lay in an advance across the western high ground.

As the situation at Cassanova (Headquarters) was unchanged at 8.30 a.m., I proceeded to the French Asylum, where I found the remainder of the *Depôt-Regiment Würth von Würthenau*. I ordered the Commandant, with the whole strength of his regiment, to attack at once the English detachments which, at about 1 kilometre distance, were pressing forward with machine-guns towards the Asylum.

Twice this attack failed, and I ordered a third attempt, at all costs, to be made. This succeeded, and at 10.15 a.m. the English cleared off the heights.

Major von Würthenau's strength must have been greatly over-estimated by the enemy, for, shortly after this, I myself saw the led-horses of a squadron, and after a short pause, those of five more squadrons, galloping towards the riflemen, who were collecting.

About 10.30 a.m., this Brigade, with three armoured cars, retired in a westerly direction, whilst our skirmishers followed them to the crest of the heights. The enemy then disappeared behind the next heights, in the direction of Haifa.

Numerous heliograph signals were observed emanating from Affule railway station, showing clearly that it was in enemy possession.

The enemy having withdrawn, I returned to Cassanova, where I found the offices of the Army Group practically cleared.

Some of our men were still firing rifles and machine-guns from the windows, in a southerly direction, though not an enemy was to be seen.

All the papers that remained unburnt were loaded on lorries and, with the remaining *personnel*, despatched to Tiberias.

The bold attempt of this English Brigade, after an arduous night-march, to capture the staff of the Army Group, had failed. We lost 43, killed in the street fighting.

The English had sent all their prisoners and wounded back to Affule.

Major von Würthenau having been ordered to form a rear-guard for the retreat on Tiberias, I myself left Nazareth with General Kiazim Pasha, Major Prigge and Rittmeister Hecker at 1.15 p.m., arriving at Tiberias at 3.30 p.m.

The British account of this action, as stated in Lord Allenby's despatch of the 30th December, 1918, is as follows, and differs considerably from the narration of the Turkish Commander-in-Chief:—

"In the meantime, the 13th Cavalry Brigade of the 5th Cavalry Division, riding across the plain of Esdraelon, had reached Nazareth, the site of the Yilderim General Headquarters, at 05.30.

"Fighting took place in the streets, some 2,000 prisoners being captured. Liman von Sanders had already made good his escape, but his papers and some of his staff were taken. This Brigade then marched to El Affule."

## NAVAL NOTES.

### GREAT BRITAIN.

Naval literature suffered a great loss in the death of Sir James Richard Thursfield in December. An Oxford Fellow with high academic distinctions, he became a leader writer to the *Times* in 1877, and devoted himself to higher problems of naval strategy and defence. His lectures and essays were published in a series of volumes of which "The Navy and the Nation" and "Nelson and other Studies" are the best known. The naval portions of the "Times Documentary History of the War" were written by him. The characteristics of his writings were a complete clearness and simplicity and a capacity for grasping the great problems of war which lie behind the technical details of military history.

### NEW CONSTRUCTION.

In his speech at Plymouth on October 25th, and again in his election address, Mr. Baldwin stated that the Government had decided to build new light cruisers. No details were given, but it was thought that the programme would be for seventeen new vessels in all. They were obviously to be a reply to the "Duguay-Trouin," and the American and Japanese 33 knotters. Considerable discussion has already centred round the calibre of the guns. A large section of naval opinion favours the 6-in. Q.F. gun.

Early in December the Admiralty revived the post of Captain Superintendent of Contract-built Ships, and appointed Captain H. A. Buchanan-Wollaston, C.M.G., to the post. The result of the general election has, of course, thrown the whole project into the melting pot. It is not known what attitude the new Parliament will adopt with regard to the building programme adopted by the last Government.

In the latter part of December submarines numbered L. 23, L. 53 and L. 54 were delivered to the Navy ready for service. L. 23 was built by Vickers; L. 53 by Armstrong, and L. 54 by Denny. Their characteristics are:—

L. 23.—890 tons on the surface; 1,080 submerged. Surface H.P., 2,400; submerged ditto, 1,600. Speed on surface, 17½ knots; 10½ submerged. Fuel capacity, 76 tons. Length, 238 feet; beam, 23 feet. Armament, 1 4-in. gun and 4 torpedo tubes.

L. 53 and 54.—960 tons on the surface; 1,150 submerged. Surface H.P., 2,400; submerged ditto, 1,600. Surface speed, 17½ knots; submerged ditto, 10½. Fuel capacity, 78 tons. Length, 235 feet; beam, 23 feet. Armament, 2 4-in. guns and 6 torpedo tubes.

### FLAG COMMAND CHANGES.

On October 3rd Vice-Admiral Sir Richard Phillimore, K.C.B., K.C.M.G., M.V.O., took up the post of commander-in-chief at Plymouth in succession to Admiral Sir Montague Browning. On the same day Vice-Admiral Sir William E. Goodenough, K.C.B., M.V.O., took up his post as Vice-Admiral Commanding the Reserve Fleet, in succession to Vice-Admiral Sir Douglas R. L. Nicholson, K.C.M.G., K.C.V.O.

On October 4th, Rear-Admiral H. W. Richmond, C.B., was appointed to relieve Vice-Admiral Sir Lewis Clinton Baker, K.C.V.O., C.B., as Commander-in-Chief of the East Indies station.

On October 14th, Rear-Admiral Aubrey-Smith was appointed to be Admiralty representative on the League of Nations commission in succession to Rear-Admiral John R. Segrave.

On 1st December Rear-Admiral E. B. Kiddle, C.B., the Admiral Superintendent of Chatham Dockyard, hauled down his flag, and was relieved by Rear-Admiral Percy M. R. Royds.

On 17th December Rear-Admiral P. H. Hall-Thompson, C.B., was appointed first Naval member to the Australian Naval Board in succession to Vice-Admiral Sir Allan F. Everett.

On 22nd December Rear-Admiral John D. Kelly, C.B., was appointed Fourth Sea Lord in succession to Rear-Admiral the Honourable Algernon D. E. H. Boyle, C.B., C.M.G., M.V.O., and Rear-Admiral Henry R. Crooke, C.B., was appointed Vice-President of the Ordnance Committee of the Royal Arsenal, Woolwich.

#### HOME WATERS.

At the beginning of October, the Atlantic Fleet assembled in the Moray Firth for combined manœuvres. Seventy vessels of all classes were present, including a number of fleet auxiliaries. On their conclusion, the various divisions which had taken part in the exercises dispersed for visits to coastal ports in the United Kingdom.

In October a change was made in the constitution of the First and Second Light Cruiser Squadrons of the Atlantic Fleet. Each was divided into two divisions, organised as follows :—

##### 1ST LIGHT CRUISER SQUADRON.

Rear-Admiral the Hon. Sir Hubert Brand.

<i>1st Division.</i>	<i>2nd Division.</i>
" Delhi " (flag).	" Dauntless."
" Danae."	" Dunedin."
" Dragon."	

##### 2ND LIGHT CRUISER SQUADRON.

Rear-Admiral T. D. Gilbert.

<i>1st Division.</i>	<i>2nd Division.</i>
" Curacoa " (flag).	" Carysfort."
" Caledon."	" Castor."
" Castor."	

On November 3rd the Atlantic Fleet, with its attendant light cruiser squadrons, flotillas and auxiliaries, were inspected at Spithead by the Dominion Premiers. In all 75 vessels were present. At its conclusion, the bulk of the fleet moved to Portland, its southern base, previous to dispersion for winter leave.

After the Naval review at Spithead, the Battle Cruiser Squadron and the First Light Cruiser Squadron were constituted into a special service squadron under the command of Rear-Admiral Sir Frederick L. Field, and started on their Empire cruise on November 27th. The squadron consists of the battleships " Hood " and " Repulse," and the light cruisers " Delhi," " Dunedin," " Danae," " Dauntless " and " Dragon." The cruise will last nearly a year, and the vessels engaged

will return to their home ports in September. On arrival in New Zealand waters the "Dunedin" is to relieve the "Chatham."

The whole squadron arrived at Sierra Leone, the first port of call, on 8th December, where they met the "Lowestoft" and the "Birmingham"—the flagship of the commander-in-chief of the Cape Station—and were entertained by the Colony. On December 22nd the squadron arrived at Cape Town, in very bad weather. The admirals in command called on Sir James Rose Innes, the Acting Governor-General, early in the afternoon; and were subsequently received by the Mayor of Cape Town at the Town Hall. Mr. Malan, the Minister of Mines, Sir Thomas Smartt, the Minister of Agriculture, and Mr. Jagger, the Minister of Railways, were present at the reception.

On December 4th the destroyers of the Ninth Flotilla went into full commission for duty with the Atlantic Fleet. The Ninth Naval Flotilla is composed of the "Mackay" (flotilla leader), "Valorous," "Vanity," "Violent," "Vectis," "Verdun," "Valkyrie," "Whitley," and "Venturous." The fourth flotilla, which the ninth replaces, has been transferred to the Mediterranean. The flotillas now serving with the Atlantic Fleet are: the 1st, 2nd, 5th, 6th, 7th, 8th and 9th.

#### SOUTH AFRICA.

On November 15th, the light cruiser "Birmingham" commissioned as flagship of the African station, and sailed for South Africa. On her arrival Rear Admiral Sir Rudolph Bentinck transferred his flag to her from the "Lowestoft," which returned home under the command of Captain Knowles, who took the "Birmingham" out.

#### EAST INDIES.

The ships of the Fourth Light Cruiser Squadron on the East Indies stations cruised round the most important Indian ports during November and December. Goa, Tuticorin, Trivandrum, Mangalore and Bombay were visited.

In December Rear Admiral Herbert B. Richmond, C.B., arrived on the station and took over the command. The ships of the squadron left Bombay on December 18th for a cruise to Trincomalee, Port Blair, Rangoon, Calcutta and Madras.

#### MEDITERRANEAN.

On October 13th, the light cruiser "Frobisher" was allotted to the Mediterranean, in place of the "Cardiff," the flagship of Sir Alfred E. M. Chatfield, commanding the Third Light Cruiser Squadron; a few weeks later the "Centaur" was replaced by the "Cleopatra." The squadron now consists of: the "Frobisher" (flag), "Calypso," "Caradoc," "Cleopatra," "Ceres," "Comus."

Early in October the aircraft carrier "Eagle," Captain Lionel Preston, C.B., completed her alterations at Portsmouth and, soon after, relieved the aircraft carrier "Pegasus" in the Mediterranean. The "Eagle" was originally intended to be a battleship in the Chilean navy, but was purchased and her conversion taken in hand during 1918. She displaces 22,790 tons.

The Fourth Flotilla, composed of the "Montrose" (flotilla leader), "Vansittart," "Venomous," "Volunteer," "Whirshed," "Wolsey," "Woolsoon," "Worcester" and "Wren," has been transferred from the Atlantic Fleet to the Mediterranean.

#### NEW ZEALAND.

Commodore Alister F. Beal, commanding the New Zealand station, carried out a cruise in the western Pacific during the autumn and returned to Wellington

early in November. His flagship, the "Chatham," will be replaced by the light cruiser "Dunedin," of the special service squadron (*see* p. 143).

#### NORTH AMERICA AND WEST INDIES.

Vice-Admiral Sir Michael Culme Seymour visited Boston for a week in the early part of October. His flagship, the "Calcutta," recommissioned in England on 28th September.

#### COLONIAL NAMES.

The interchange of ships belonging to the Colonial and Royal Navies was amongst the most important matters discussed at the Imperial Conference. As a first step in a general plan, it was decided that the light cruiser "Adelaide" should return to England in the summer in company with the Special Service Squadron. On 1st December the Australian squadron, under the command of Rear-Admiral A. P. Addison, returned to Sydney after a two months' cruise to the principal ports of Australia.

Mr. Bowden, the Australian Defence Minister, recently made an important official statement with regard to Singapore and the Australian navy. The reductions in the Australian navy from 1921 to 1923 were:—1 battle cruiser, 4 destroyers, 6 submarines, 2 auxiliaries; leaving a total force of 3 light cruisers, 3 destroyers, 6 submarines, and a *personnel* of 7,500 men. He spoke warmly in favour of the Singapore scheme, saying that subsequently, in view of British interests outside the Pacific, it was unlikely that more than half her forces would be available to defend Australia against a direct attack.

#### FOREIGN NAVIES.

##### ARGENTINE.

The Argentine Parliament has voted the necessary money for refitting and re-equipping the battleships "Rivadavia" and "Moreno" (27,940 tons each), and the destroyers "Catamarca" "La Plata," "Cordoba," and "Injuy." The work is to be done in America.

##### BRAZIL.

A new Naval Discipline Act, dated 16th February, 1923, has been brought into force in the Brazilian navy. It consists of 75 articles, and defines, very closely, the power of punishment granted to Commanders-in-Chief, Captains of vessels and courts martial.

##### DENMARK.

The Naval Budget for the year 1924-1925 involves an expenditure of £570,000. About a seventh of this is to be spent on new buildings, and rather more than a third to maintenance and upkeep of buildings and establishments.

##### ESTHONIA.

The Esthonian gunboat "Lemkir" recently visited Helsingfors, where a number of Esthonian officers watched the coastal defences of the town carry out a practice, the object of which was to repel a surprise naval attack on the town.

##### FRANCE.

CHANNEL AND ATLANTIC.—The northern squadron left Brest early in October for a week's exercises, the object of which was to test the danger incurred by a fleet

which makes a sortie from a harbour closely watched by flotillas and submarines. Cherbourg was the harbour selected for the purpose. The operations were much hampered by fog, and the results were much debated.

On 16th November the 1st Submarine Escadrille carried out practices in the Channel between Brest and Dunkirk. Whilst entering Dunkirk, the submarine "Victor Réveille" touched on the bar, but sustained no damage.

During the last week of November the battleship "Condorcet" left Brest with a division of seven destroyers and did special exercises outside Brest.

A floating dock for seaplanes, displacing 127 tons, is now being constructed at Lorient, the naval air centre, as this port is being completely re-organised; but it has not been said for which aero establishment the new dock is intended.

Admiral Schwérer, the Commandant en Chef des frontières de l'Atlantique, made a tour of inspection of the coasts of Brittany during December, with his flag in the destroyer "Rageot de la Touche."

Parliament has voted funds for creating a naval aviation centre at Lanvéoc, a small village on the southern side of the Rade de Brest, with a fort of the old type near it.

During November various classes of destroyers were subjected to severe sea-going tests in the Bay of Biscay; the sea qualities of the ex-German destroyers of the "Délage" class (900 tons) were compared with those of the French-built "Magon" type (850 tons) in very bad weather. The French boats are reported to have shown that they were in some respects the better designed.

MEDITERRANEAN.—The "Waldeck Rousseau," flagship of the Eastern Mediterranean squadron, arrived at Toulon on 8th October, with four torpedo boat destroyers, and returned to the Eastern Mediterranean on 23rd November. The French naval forces in the eastern basin have been reconstituted into a single squadron, the "division de Syrie." Placed under the orders of Contre Amiral Vindry, the new division is to consist of: the "Waldeck Rousseau" (flag), light cruiser "Mulhouse," and the despatch vessels "Liévin," "Béthune," "Montdemont" and "Baccarat."

The Mediterranean squadron carried out its autumn manoeuvres between 2nd and 17th October under Vice-Admiral Dumesnil, flying his flag in the "Provence."

The exercises included coastal manoeuvres off Tunisia, and a combined attack on Bizerta. A few weeks before, the battleship "Lorraine" repeated the raid of the "Goeben" and "Breslau" upon the French communications between Toulon and Algeria. Her operations were very successful. In the later part of November, the squadron again visited the African ports and carried out a fresh series of exercises, including practice deployments behind smoke screens. During the November manoeuvres, the best method of exercising command over submarines operating with a fleet of capital ships was also tested experimentally. The solution adopted was to place the submarine squadron commander aboard the Flagship. It was not found satisfactory; and French submarine officers are urging that the submarine commander must be given a surface vessel "which at once ensures an effective command of the units under his orders, and a working *liaison* with the commander-in-chief." For some reason this has hitherto been opposed by the high naval command.

On 22nd October Monsieur Raiberti visited Toulon for an inspection of the naval air service stations at Berre, Cuers and Saint Raphael. It has been decided that the last-named station is to be enlarged and brought up to date.

Early in December the battleship "Paris" joined the Mediterranean squadron,



after being altered structurally at Brest. The chief alterations carried out have been that the range of her 12-in. guns has been increased to 23,000 metres, and that she has been fitted with a tripod mast.

**NEW CONSTRUCTION.**—According to information now available the dates of completion of the new French light cruisers and destroyers are as follows:—

Light cruisers	{	The "Duguay-Trouin," December, 1924.
		The "Primauguet," April, 1925.
		"Lamotte Picquet," April, 1925.
		"Tigre."
Flotilla leaders	{	"Léopard," February, 1925.
		"Lynx."
		"Chacal."
		"Panthère."
		"Jaguar," 1924.

The submarine "Maurice Callot" completed her raids during October. She displaces 932 tons on the surface and 1,300 tons submerged; length, 247 ft.; beam, 22 ft.; draught, 12 ft.; speed, 16·5 knots on the surface, 10 knots submerged. She carries one 14-pounder gun, and is armed with six 18-in. torpedo tubes. She is a mine-laying submarine with an establishment of 27 mines, which are laid from the upper deck.

In October the flotilla leader "Jaguar" was launched at Lorient. She will eventually be the most powerful type of destroyer afloat. Her speed will be 36 knots, and her armament will be six 5·1-in. guns.

Early in December the river gunboat "La Vigilante" was launched at Toulon.

Great interest has been aroused in naval circles by the trial of two new types of heavy gun at Gavres, near Lorient. The 340 mm. (13·55-in.), 75-calibre gun is reported capable of firing a light shell up to 65 miles; the 450 mm. (17·8-in.) fires a heavier shell up to about 38 miles. The German "Berthas" bombarded Paris from about 75 miles in 1918.

#### GERMANY.

A Commander-in-Chief of the German naval forces has been appointed. He is to have supreme control of the Baltic and North Sea forces, and is to fly his flag in the "Braunschweig." The light forces of each station will be combined.

After the summer cruise the ships of the North Sea forces dispersed to their home ports. The cruiser "Hamburg" was employed in assisting the police to suppress the Communist disturbances at Kiel in November.

#### HOLLAND.

In October the Netherlands Parliament threw out a Bill for creating a larger fleet for the defence of the East Indies. The additional expenditure involved was £30,000,000.

The submarines "K II," "K VII," and "K VIII" have been sent to the East Indies under the convoy of the "Pelikaan."

#### ITALY.

The administrative reforms of the new Minister of Marine, Admiral Thaon di Revel, are proceeding rapidly. The five old battleships, the "Sardegna," "Vittorio Emanuele," "Regina Elena," "Napoli" and "Roma," have all been placed on the scrap heap. These vessels were mainly designed by Cuniberti and

were regarded in their time as an adaptation of the dreadnought principle of construction to the Adriatic conditions. The new Minister of Marine's other proposals comprise modernising the armament of a large number of older units in the fleet, and a complete revision of the existing systems of fire control, gunnery practices, and of the method of carrying out fleet exercises. He also intends to place before the Chamber of Deputies a building programme comprising a certain number of light cruisers of the heavier type.

On the 18th November T.M. the King and Queen of Spain arrived off the coast of Italy in the "Jaime I." They were met by a division of four Italian super dreadnoughts under the command of Vice-Admiral Solari, with a flotilla of twelve destroyers and were escorted into Spezzia. The visit has caused much comment in the French press.

The flotilla leader "Leone" and the destroyer "Monzambano" were launched in October. The "Leone" displaces 2,165 tons, her horse-power is 50,000 and her speed 35 knots; her length is 360 feet; beam, 34 feet; armament, eight 4.7-in. guns in twin mountings; two 3-in. anti-aircraft guns and two twin 21-in. torpedo tubes.

The "Monzambano" displaces 925 tons, and has a horse-power of 27,000; her speed is 33 knots; length, 277 feet; beam, 34 feet; draught, 11½ feet. Her armament consists of four 4-in. guns; two 3-in. anti-aircraft guns, and two triple 18-in. torpedo tubes.

#### JAPAN.

The loss of material and the damages to ships caused by the recent earthquake is now more or less accurately known. The battleships "Asahi" and "Satsuma," both of them laid by for scrapping, were destroyed; the destroyers "Kashiwa" and "Matsu," launched in 1915, have also been sunk. The light cruiser "Naka" is very badly damaged; and the aeroplane carrier "Wakamiya" has been destroyed. The two new cruisers "Kinugasa" and "Kako," 7,000 and 5,570 tons respectively, which were still constructing when the disaster occurred, have also been lost. The aeroplane carrier "Amagi" was so badly damaged that she is to be replaced by the converted battleship "Kaga," which was to have been scrapped by the Washington treaty. In Yokosuka, the stores of mines, torpedoes and munitions have been wiped out. Private yards suffered severely; the Asano shipyard, where two destroyers were being built, and the Ishikawajima yard, which was also building destroyers for the Government, were both obliterated.

Independently of the earthquake, the navy suffered a serious loss on 24th August, when submarine No. 70 (770 tons surface displacement) foundered in Osaka Bay with 85 men. On 29th October, submarine No. 26 foundered at her moorings in Kure harbour.

The light cruisers "Isuzu" (5,570 tons, seven 5.5-in. guns) and the "Yubari" (3,100 tons, six 5.5-in. guns) were delivered to the navy in August; 1st class destroyers Nos. 3 and 5 (1,400 tons) and 2nd class destroyer No. 18 have also been delivered and put into commission.

#### LATVIA.

The Latvian Parliament has approved of the building of two submarines, two minesweepers and six seaplanes as a mobile defence of the sea approaches to Riga. The programme is to be completed in four years. A larger programme, to be completed in seven years, is under discussion. It will comprise the building of a group of destroyers and additional submarines.

**RUSSIA**

Although it is very difficult to ascertain what progress has been made towards re-equipping the Soviet navy, there are a few points upon which all reports agree: (i) The dockyards have been put into something like working order. A dozen small craft which could not put to sea owing to defects in their engines, have recently been put into commission; (ii) the battle cruisers "Kinburn," "Borodino," "Navatin" and "Ismail" are to be completed; (iii) the Council for Defence has sanctioned the building of six 800-ton submarines for the Baltic and four destroyers and ten submarines for the Black Sea.

The news which has come through about the recent activity of the Baltic squadron imply that some advance has been made towards getting the naval forces of the country into a relatively efficient state. At the end of September the Russian Baltic Fleet carried out combined manoeuvres on quite a considerable scale. Exact details are lacking, but the general purpose of the operations is fairly well known. The fleet left Kronstadt on September 28th; and seems to have divided soon after, one section being detailed to oppose a landing at some point on the coast, and the other to cover it. The transports left Kronstadt some hours later, and went direct to the landing place with only a small escort of armed ships. The attacking force was located at about noon; but it drove the defenders westward, and the landing from the transports took place some five hours later. At dark, and on the following day, the defending forces made a determined attack upon the covering fleet with destroyers, minelayers and air craft, apparently without success.

**SWEDEN.**

The Swedish Admiralty have asked for an allocation of 42,000,000 kronen (about £2,300,000) for building four new destroyers, three submarines and two torpedo boats. Additional sums have been demanded for rebuilding various naval establishments and renewing war material.

**UNITED STATES OF AMERICA.**

On 1st September the U.S. battleship "Colorado" completed and was delivered to the navy at Philadelphia. She is 624 feet long, displaces 32,600 tons and has a speed of 21 knots. Her battery consists of eight 16-in. guns.

When the "Colorado" and "West Virginia" come into full commission, the "Delaware" and "North Dakota" are due for the scrap heap.

On 9th October the U.S. cruiser "Marblehead" was launched at Cramp's yard, Philadelphia. This vessel will displace 7,500 tons, and develop a horsepower of 90,000. Her speed will be 33.7 knots and her armament will consist of twelve 6-in., four 14-pounder anti-aircraft guns; two twin and two triple 21-in. torpedo tubes.

The Government has ordered the destroyers "Decatur," "Sinclair," "McCawley," "Moody," "Henshaw," "Mayor" and "Doyen" to be recommissioned in replacement of the lost seven destroyers.

Details have recently come to hand about the bombing experiments off Cape Hatteras. The two old battleships, "New Jersey" and "Virginia," were anchored in deep water, with the transport "St. Mihiel" close by, for observation. Four attacks at an altitude of 3,000 feet were necessary to sink the "New Jersey"; the "Virginia" sank after one, in which only eleven 1,100-pound bombs were used. In the opinion of the experts present the bombs, which were adjusted to explode below the waterline and dropped near the vessel, did not do any appreciable damage by opening up seams in the hull; and the direct hits

really caused the ship to sink. During their successive attacks on the "New Jersey" the airman laid a smoke screen round her.

American naval officers claim that the results obtained prove that only a fleet at anchor may be seriously inconvenienced by air attacks, and that single ships might conceivably be sunk by a determined attack from a very large number of aeroplanes. The airmen's claims are higher.

In order to promote interest in the navy and encourage naval recruiting 27th October has been selected as the official "Navy day" of the American fleet. All shore stations are to be opened and the commanders of ships and squadrons are to make their own arrangements.

In his annual report to Congress, Mr. Denby, the Secretary of the Navy, asked for an appropriation of 30,000,000 dollars for carrying out a programme of modernising the fleet; and a special sum of 7,676,000 dollars for building naval bases. Mr. Denby laid great stress upon America's weakness in light cruisers and recommended that eight 10,000-ton cruisers should be taken in hand at once. No news has yet been received as to the attitude of Congress on these proposals.

The findings of the court martial upon the officers concerned in the stranding of the seven destroyers are that Captain Watson, the senior officer, and Lieutenant-Commander Hunter, are to be deprived of seniority. The House of Representatives has asked that all papers relevant to the trial and minutes of proceedings shall be published.

#### EXTRACTS FROM CURRENT NAVAL DISCUSSIONS.

##### SUBMARINE CONSTRUCTION.

In the June number of the naval review *Le Yacht*, Monsieur Laubeuf opened a discussion upon the problems of submarine construction. His conclusions were that a limit of 1,100 tons should be placed upon all submarines, as, if they were made larger, they lost the qualities for which they were originally designed, and tended to become mere surface cruisers, with the power of submerging.

In the number of the same Journal, dated 21st July, Monsieur Simonet answered Monsieur Laubeuf by the following arguments. A submarine of 1,100 tons, capable of firing four torpedoes at one moment, in any given direction (which is assumed to be the fundamental desideratum for any submarine) cannot increase her speed beyond a certain point. Is it reasonable to set such boundary posts round a type of vessel which is to be used against ships travelling at 25 to 30 knots? Monsieur Simonet then examines the amount of fighting power obtained by an equal expenditure on two submarines of the 1,100-ton type or one larger one. For 30 million francs one can obtain:—(i) two 1,100 submarines carrying 10 tubes and one medium calibre gun each, and capable of moving at 16 knots on the surface or 10 submerged, or (ii) one submarine of 2,400 tons, carrying 24 tubes and two medium calibre guns, and capable of moving at 19 knots on the surface and 13 knots submerged. Without claiming that the large submarine could do the work of the two small ones, Monsieur Simonet argues from these figures that submarines are subject to the general law of ship construction—increasing tonnage. The discussion has an exceptional interest in view of the careful examination of submarine possibilities which is now being made in France. An ingénieur du génie maritime, appointed to report on submarine construction, is said to have deprecated mounting a heavier gun than a 4-in. in any of the new boats. Following upon the discussion between Monsieur Laubeuf and Monsieur Simonet comes a detailed report in the German papers of Professor Oswald Flamm's latest designs for very large submarines.

They are of three types :—(i) a submersible cruiser of 1,443 tons, plated with 1½-in. armour, and carrying two 5·9-in. guns in armoured turrets; (ii) a larger vessel of nearly 5,000 tons with two 8·2-in. guns, and (iii) a vessel of 8,400 tons, carrying two 9·4-in. guns in turrets. The practical utility of the larger type is very much put in question; it will be interesting to see whether any of the smaller Powers in Europe and South America will be tempted to incorporate such ships on their programmes.

#### LIGHT CRUISER CONSTRUCTION.

Serious criticism has been levelled against the French light cruisers of the Duguay-Trouin class. It is now being objected that their armament of 6·1-in. guns will put them at the mercy of the light cruisers of every other Power. To this the designers have answered that the guns adopted will have a muzzle energy sufficient to enable their projectiles to penetrate the armour decks of any light cruiser afloat at a range of 23,000 m., and that the speed and protection of the new vessels compensates them. Some of the arguments of the critics seem sound; others are extremely doubtful. The comparison which they have made between the German 4·1-in. and the British 6-in. guns does not lead to the hard-and-fast conclusions to which they cling. The facts are that when the "Emden" was destroyed, and at the battle of the Falklands, the British 6-in. gun asserted and maintained a marked superiority; but that, at other times, the result was doubtful. In the first part of the Heligoland Bight action, the "Arethusa" suffered more damage from the German guns than she inflicted. At Jutland, the German light cruisers which fell in with Commodore Goodenough's squadron just after 10 p.m. certainly inflicted as much damage as they received; whilst, at the Dogger Bank, the very brief engagement between the light cruisers on either side ended with the honours easy.

The announcement that Great Britain intended to build a group of 10,000-ton light cruisers gave a fresh impetus to the discussion about the Duguay-Trouin class.

The French designers maintain that the allocation of tonnage given to the offensive armament, protection and speed of the class is fully justified when the vessels are analysed in detail; and that the additional 2,000 tons of the new British cruisers cannot make them superior in attacking power and speed to the "Duguay-Trouins." It is evident that the alleged qualities of the 6·1-in. gun, with which the new French cruisers are armed, greatly influenced the Conseil Supérieur when the designs were submitted.

The design of the new French flotilla leader "Jaguar" has come in for a certain amount of criticism from the British side. *The Naval and Military Record* writes that: "In view of the fine lines and the great weight of her armament, the 'Jaguar' threatens to prove rather lively in a sea way. The type of vessel is capable of efficient service in the Mediterranean; but its value for overseas operations is more questionable."

French naval opinion has been much exercised upon the question of modernising the old armoured cruisers of the "Edgar Quinet" class. The question came to a head with the visit of H.M. the King of Spain to Italy, which some sections of the French press took to be the preliminary to an Italo-Spanish naval *entente*. It was argued that, in offensive power, these ships would always be more powerful than the 10,000-ton type of cruiser provided for under the Washington agreement. They carry 14 7·6-in. guns, eight of which can fire right ahead or astern. The arguments against the project are that the vessels can never be made a match for the "Romas" (two 12-in. and twelve 8-in. guns) or for the "San Marcos" (four 10-in. and eight 8-in. guns), over which they have only a slight margin of speed, 1 or 2 knots.

## JAPANESE WAR PROBLEMS.

The *Baltimore Sun* for the 17th and 18th August publishes a review of an article which has recently appeared in the Japanese press. The writer, Captain Mizuno, examines some of the economic consequences of a war between Japan and America. He comes to the unpalatable conclusion that his own country would never be able to bear the financial strain. Eighty per cent. of her exports in silk and cotton would lose their markets; and 75 per cent. of her general export trade would disappear. With her purchasing power thus diminished, she would have to bid against American competitors for oil, wool, and iron in neutral markets. Captain Mizuno further examines the plan of making good these disadvantages by exploiting Chinese industrial districts by means of military pressure. His conclusion on this head is that such a measure of coercion would aggravate the evils of the position.

## STRATEGICAL PROBLEMS OF THE DUTCH EAST INDIES.

The Dutch Admiral Gooszen, ex naval commander in chief in the Dutch East Indies, has discussed the rejection of the Naval Bill (*see* Naval Notes, Holland), in an article in the *Maasbode*, dated 12th August. He draws attention to the enormous commercial development of Japan, which has increased its mercantile tonnage by 1,500,000 tons in the course of 20 years. "When one considers that Japanese commerce has an estimated value of 2,336,000,000 yen, and that practically all of it passes through our archipelago, one realises how strong an interest her Government has in keeping those waters open." America is obliged to find new markets in the Far East owing to Europe's poverty. It is not hard to see that, for these reasons, the Pacific is becoming a place of the highest commercial importance. The position of the Netherlands East Indies on the great maritime routes gives them a great strategical importance; and though the Washington Conference has given Holland a certain security, by recognising her rights in the Dutch East Indies, it must not be forgotten that the Conference is not a treaty. Her interest and duty is to see to it that the sea passages through the Archipelago are kept open.

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MILITARY NOTES.

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## THE ARMY.

*Promotion and Appointment.*—Lieutenant-General Sir F. Ivor Maxse, K.C.B., D.S.O., has been promoted to the rank of General in place of Sir Horace Smith-Dorrien, who has retired.

Major-General Sir John Edward Capper, K.C.B., K.C.V.O., has been appointed Colonel Commandant Tank Corps.

## CAVALRY BRIGADE RENUMBERED.

The 5th Cavalry Brigade at Secunderabad became, in November last, the 4th, owing to the abolition of the 4th Cavalry Brigade at Lucknow.



## ROYAL TANK CORPS.

A Royal Warrant issued on 7th November, 1923, runs as follows :—

" WHEREAS WE have noted with great satisfaction the splendid work that has been performed by Our Tank Corps during the Great War,

OUR WILL AND PLEASURE is that this Corps shall enjoy the distinction of ' Royal ' and shall henceforth be known as Our ' Royal Tank Corps.' "

*Commissions in the Tank Corps.*—A new Article in the Pay Warrant provides that a commission as Second-Lieutenant in the Royal Tank Corps may be given to the following :—a Cadet who has passed through a course of instruction at the Royal Military Academy, Woolwich, or the Royal Military College, Sandhurst; a Cadet of the Royal Military College, Kingston, Canada; a candidate from a university; a warrant officer or non-commissioned officer.

*Instructors, Tank Corps.*—An officer of the Royal Tank Corps who has held the appointment of an instructor or assistant instructor at a Tank gunnery school or a Tank driving and maintenance school for at least six months will be considered as qualified at an instructor's course at the school at which he was employed. The names of officers so qualified will be submitted to the commandant of the school concerned, who, after verification, will forward the names of the officers to the War Office, where they will be noted as qualified in that respect for promotion.

An Army Order states that the button of the uniform of the Tank Corps will be of gilt metal with interwoven monogram R.T.C. surmounted by a Crown.

## RETIRED PAY OFFICERS.

*Service under Foreign Powers.*—A new Article in the Army Pay Warrant provides that an officer who is in receipt of retired pay, or who retired with a gratuity, or who is a member of the Regular Army Reserve of Officers, may not enter the service of a foreign Power without the consent of the Army Council.

An Amendment to the Pay Warrant provides that the officer commanding an armoured car company of the Royal Tank Corps, where the company is an independent command and does not form part of an armoured car or other group for the command of which command pay is otherwise authorised, will receive command pay at the daily rate of three shillings. It is further provided that an officer transferred to the Royal Tank Corps from the Royal Engineers will be entitled to draw corps pay, provided that he was previously eligible to draw engineer pay under the Warrant.

## NEW MEDAL.

A new medal is being struck to commemorate military operations, as notified in Army Orders from time to time, otherwise than in East, Central and West Africa, or in India or on the Indian Frontier. The medal will be known as the " General Service Medal." In each case in which the medal is issued a clasp will be fixed denoting the operation for which it is granted.

## ARMY ENTRANCE EXAMINATIONS.

*Prospective Changes.*—It is officially announced that as a result of a Conference at the War Office, at which both the Civil Service Commission and the Headmasters' Conference were represented, the lower age limit for admission to the Royal Military College, Sandhurst, and to the Royal Military Academy, Woolwich, will be raised

from 17½ years to 18 years, with effect from the Army Entrance Examination to be held in June, 1925.

The question of altering the form of the Army Entrance Examination was discussed at the War Office Conference and it was decided that the Civil Service Commission should convene a meeting with representatives of the Headmasters' Conference at which detailed recommendations could be prepared with a view to submission to the General Staff for acceptance. It is hoped that the new form of examination will also come into effect at the Army Entrance Examination of June, 1925.

#### PROMOTION FROM THE RANKS.

New regulations governing promotion from the ranks to combatant commissions as second lieutenants have been issued as an Army Order. For the present, candidates will be granted commissions only in the Cavalry, Corps of Signals, Tank Corps, and Army Service Corps; but no candidate will be recommended unless he has been employed in a capacity where he has shown power of leadership.

Candidates will now be required to undergo a course of training of about eighteen months' duration at the Royal Military College, Sandhurst, and to obtain a satisfactory report therefrom. The dates of admission to the College will be in February and September of each year, and the number of candidates admitted each half-year will vary according to the requirements of the Service. There will be fifteen vacancies for the first course under the new regulations commencing in September, 1924.

To be eligible for recommendation by his C.O. a candidate must be :—

- (1) Medically fit;
- (2) In possession of an Army First-class Certificate of Education, unless he is exempt from obtaining such a certificate;
- (3) At least an unpaid lance-corporal, and have held that appointment for six months prior to 1st January or 1st July, as the case may be, of the year in which he is recommended;
- (4) Under 23 years of age on 1st January for admission in the following September, and 1st July for admission in the following February; and
- (5) Have at least two years' unexpired colour service or be prepared to extend his service with the colours for such period as will leave him with two years' unexpired colour service.

Candidates from the ranks admitted to Sandhurst will be allowed the necessary military outfit and other specified emoluments, and, on being commissioned, an outfit allowance of £100, subject to a deduction of the value of the available cadet outfit, estimated at £14.

#### KING'S REGULATIONS.

*First Issue since the War.*—The first edition of the King's Regulations to be issued since the War may now be purchased through any bookseller from His Majesty's Stationery Office. Military experience since 1914 has rendered the pre-War edition entirely out of date and a glance at the new edition shows that the book has been practically re-written. The new title "The King's Regulations for the Army and the Army Reserve," for one thing, is an indication of the alterations effected by the inclusion for the first time of the Regulations for the Army Reserve hitherto issued as a separate volume.

The incorporation of these Regulations under one Section which will deal with the Army Service, transfer to the Reserve, Reserve Service and discharge of soldiers, will effect much saving of time and labour in administration on the part of Officers in Charge of Records and Regimental Officers.

Broadly, the arrangement of the new issue presents the General Organisation of the Army, including the War Office and Commands; the duties of Commanders and of the Staff; and then, in succession, everything appertaining to the Officer; and everything relating to other ranks from enlistment to final discharge.

The section on discipline incorporates among other changes those rendered necessary by the abolition of Regimental Courts Martial, but with the revision of the "Manual of Military Law" still in progress, it has not been found possible to re-cast this section as completely as will ultimately be necessary. The section on movements has been wholly re-written to include all that an embarkation officer or an officer commanding a unit should know.

Opportunity has been taken in other sections to relegate much detail as to courses, schools, etc., which is unsuitable to a major book of regulations, to publications with a more frequent issue and to incorporate in one section, as in the case of the sections dealing with officers and other ranks, instructions which, though dealing with one subject, were hitherto scattered throughout the book. The result has been that, in spite of the inclusion of much new important matter both in the body of the book and in the appendices, a very considerable curtailment of the old basis has been found possible, with the result that the total size remains much the same as in 1914.

#### ANTI-GAS TRAINING.

*Courses of Instruction.*—It is officially stated that courses of instruction in anti-gas training will be held in February and March of this year, at the War Department Experimental Station, Porton, Wiltshire. The object of these courses is to train officers from each regiment of Cavalry, Brigade of Artillery, Divisional Engineers, Battalion of Infantry and Tank Battalion of the Regular Army to a standard which will enable them to act as instructors to their units in gas defence. It is anticipated that 100 officers will be taken annually, so as to allow of one officer from each of the above units at home and one officer from each station abroad being trained during the year. The courses will comprise instructors' courses for training platoon and company officers as unit instructors; and courses for staff and regimental officers of all arms above the rank of Captain, to keep such officers in touch with recent developments in anti-gas training.

#### SCHOOL OF MILITARY ADMINISTRATION.

No further administrative courses for officers or non-commissioned officers are to be held at the School of Military Administration at Chisleton after the termination of the courses now assembled there. The cookery wing of the school will be reconstituted into a separate school of cookery, and courses of instruction in cookery and catering will be held next year.

#### ARMY VOCATIONAL TRAINING.

The Army Council has decided to extend the benefits of vocational training to men serving in the Colonies. In future such soldiers who are selected by their commanding officers to attend the course of instruction at the Army Vocational Training centres at Hounslow and Catterick, will be required while serving overseas to extend their service voluntarily so as to admit of their having a clear six months to serve with the colours on their arrival in England. Furlough on discharge under the King's Regulations will in these cases be granted only where it can be taken within the period of the soldier's colour service engagement as so extended. In India special arrangements for vocational instruction are made locally.

The courses of training at Hounslow and Catterick commence at the beginning of every month and each course is of six months' duration.

#### EDUCATION IN THE ARMY.

The latest examination for the 1st Class Army Certificate of Education showed (states a War Office announcement) a marked advance in the number of candidates and of the certificates gained. One thousand three hundred and sixty candidates were examined, and of these no fewer than 54 per cent. qualified for the full certificate, as compared with 38 per cent. in April 1923, and 14 per cent. in 1922. In addition, 15 per cent. passed in all but one of the subjects. The examination embraces English (including authors such as Kinglake and Dickens), Geography, Mathematics, and Map-reading; and under the new regulations a candidate who fails in any one subject is allowed to take this subject only in a subsequent examination, provided he has reached a good aggregate of marks.

The growing popularity of the 1st Class Certificate is, it is added, a significant response to the stimulus provided by the Army Education scheme, and may be regarded as indicating an increased sense on the part of the candidates of the value of education in relation to military efficiency. At the same time the Certificate has a special value, inasmuch as it now satisfies one of the primary conditions on which men in the ranks are recommended for admission to Sandhurst with a view to obtaining combatant commissions.

#### EDUCATION OF BANDSMEN.

On and after 1st September, 1924, all bandsmen, and boys for training as bandsmen, must be in possession of a 2nd Class Certificate of Education before admission to a pupils' course at the Royal Military School of Music, Kneller Hall.

#### ARMY RESERVE.

It is officially stated that there will be no training of the Army Reserve during the financial year 1924-25.

#### WOOLWICH ARSENAL.

At the end of the present financial year the Experimental Department at Woolwich Arsenal is to be closed down.

#### DEVELOPMENT OF LIGHT AUTOMATICS.

The development of Light Automatics—the Lewis and the Hotchkiss—since the European war is calculated to make considerable changes in the programme of musketry instruction for the Army and Command Rifle shooting meetings. The General Staff attach great importance to the use of these rapid firing weapons in any future war, and special instructions for the training in small arms of both mounted and foot soldiers will shortly be issued.

The Army Rifle Association this year devised several important contests for Light Automatics, and the programme for next year, which is now in course of preparation, will in all probability mark an advance in this direction. Musketry experts unhesitatingly affirm that in the course of a few years the Army Rifle Championship, both at home and abroad, will include a test or tests with automatic rifles.

The musketry training of the Territorial Army approximates to that laid down for the Regular Army, and since special prizes have been offered the Territorial Army Rifle Association for light automatic events, a Lewis gun contest will find its way into the rifle shooting programme of that Association.

## VOLUNTARY AID DETACHMENTS.

*A Technical Reserve.*—The Army Council has approved a scheme under which, in the event of war or other national emergency, the Medical Services of the Navy, the Army, and the Air Force will be supplemented by the *personnel* of Voluntary Aid detachments. These detachments will furnish the recruits for motor ambulance convoys and ambulance trains, hospitals, and hospital ships, rest stations, convalescent homes, and other requirements for the sick and wounded.

Detachments will form part of the technical reserve of the forces of the Crown, but before a detachment can be recognised by a Territorial Association it must be registered and numbered at the War Office through the Joint Voluntary Aid Detachment Council. Existing detachments need not be re-registered, but all members of such detachments will be re-enrolled. Detachments will be recruited and organised on a county basis, and will be administered by County Controllers appointed by the Territorial Associations in agreement with the bodies which provide detachments in the several areas, and in agreement with the Council.

It will be one of the principal duties of the County Controller to organise and maintain local Voluntary Aid detachments through the bodies providing the detachments in the area, as may be directed by the Joint Council.

*Mobile and Immobile Classes.*—The *personnel* of detachments will comprise a mobile and immobile class. The mobile members of men's detachments will be between the ages of 19 and 40, and of women's detachments between 21 and 40. They must be prepared to undertake service on mobilisation, either at home or abroad, while immobile members, both men and women, who must not be under 18 years of age, will serve within reach of their homes. Men of military age, enrolled in any of the detachments, will not be held to be exempt from military service in accordance with any Military Service Act that may be in force.

Candidates for appointment in the men's detachments, unless qualified as pharmacists or by previous experience in the Medical Services, must be in possession of a First Aid Certificate; and, similarly, women, with the exception of trained nurses, pharmacists, qualified dispensers, and hospital cooks, must have taken the certificates in First Aid and Home Nursing. Candidates not in possession of such qualifications will be regarded as on probation and will not be entitled to wear uniform.

*First Members of the Council.*—The Territorial Army Associations will be responsible for the enrolment and efficiency of the various detachments, acting in close co-operation with Joint County Committees, and those who will train the *personnel* in their respective areas. But the Central Joint Voluntary Aid Detachment Council will have full administrative and executive powers within the limits of the scheme, and for this purpose will be the normal channel of communication and the bodies providing detachments in the counties and the War Office.

The first members of this Council consist of the representatives of the Admiralty, War Office, Air Ministry, Territorial Army Associations, Order of St. John, British Red Cross Society, and St. Andrew's Ambulance Association.

Lieutenant-Colonel W. H. A. De la Pryme has been appointed Secretary of the Council, the offices of which will be No. 80, Pall-mall, London, S.W. 1.

## ROYAL RIFLES OF CANADA.

The King has approved of the Royal Rifles of Canada being shown in the Army List as allied to the King's Royal Rifle Corps.



## TERRITORIAL ARMY.

The King has approved of the 21st (Gloucestershire Yeomanry) Armoured Car Company (Territorial Army) being in future designated the "21st (Royal Gloucestershire Hussars) Armoured Car Company (Territorial Army)."

*A Year's Recruiting.*—The latest official returns of recruiting for the Territorial Army, published in October last, show that during September 1,132 men were finally approved for service and that the number enlisted during the twelve months of the present recruiting year was 34,662. All were recruited for the period of 4 years. The total Territorial strength is now 140,626.

The strength, exclusive of permanent staff in the various Commands, is now as follows:—Western Command, 31,221; Northern Command, 30,147; Scottish Command, 21,512; Southern Command, 20,930; Eastern Command, 19,902; London District, 16,914; total, 140,626.

Among the Divisions the Welsh takes the premier place with a total strength of 9,649; while the Highland comes second with 9,085; the Northumbrian third with 8,964; and then West Lancashire with 8,899, East Lancashire with 8,718 and North Midland with 8,624.

The best recruiting for the Territorial Army in October last was in London, where 374 men were finally approved for service. The total enlistments were 1,643; and at the end of the month the Territorial strength, exclusive of permanent staff, was 139,930.

## CADET FORCE.

The withdrawal of the Cadet Force grant has not had any serious effect on numbers, the Cadet Force being as strong as hitherto, the latest return showing a strength of 119,000 as against 41,000 in 1914. Under the new administrative scheme, which came into operation early in November last, the routine work is undertaken by the Council of Territorial Force Associations, whilst policy and inspections, which also afford facilities for training and camping, is looked after by the War Office.

## SCHOOL CADET CORPS.

It is officially stated that the examination for certificate "A," Officers' Training Corps, is open to candidates belonging to secondary schools or recognized Territorial Army Cadet units who are not members of the Officers' Training Corps. Such candidates may undergo the examination provided (a) that they are prospective candidates for the Army Entrance Examination and are taking the certificate "A" examination with a view to qualifying for the additional marks which this certificate carries in the Entrance Examination; or (b) that they are potential candidates for appointments to commissions in the Militia or Territorial Army and are taking the examination with a view to qualifying for such appointments. In either case candidates must have attained the age of 16 before October 1 immediately preceding the date of the written examination at which they desire to present themselves, and must before October 1 in question have been in their present schools for at least two years, or have served for at least two years in recognized Territorial Army Cadet units.

## INDIA.

## JUBBULPORE BRIGADE.

The headquarters of the Jubbulpore Brigade Area has been abolished, and from the 10th December last, the headquarters of the 21st Indian Infantry Brigade took over the control of the area, which will form the headquarters of the brigade for the future.



## PAY OF OFFICERS ON LEAVE.

Revised rates of pay admissible to administrative medical officers of the British Service and the Indian Medical Service when on leave out of India are as follows :—

Director Medical Service in India (Lieutenant-General or Major-General), £1,350 per annum; other Major-Generals, £1,250 per annum; Colonel, £1,100 per annum.

It has been decided that, with effect from 1st October, 1923, the following rates of State pay shall be issuable to officers of Indian Pack Artillery, Frontier Garrison Artillery, Indian Coast Artillery, and the Pack Artillery Training Centre :—

(1) Lieutenant-Colonel Commanding Indian Pack Artillery Brigades, Rs. 500 per mensem. Adjutant of Indian Pack Artillery Brigades (exclusive of office allowance), Rs. 200 per mensem.

(2) Officers serving with Indian Pack Batteries Frontier Garrison Artillery, and Indian Coast Artillery : Major, Rs. 225 per mensem; Orderly Officer at Headquarters of Brigades, Rs. 100 per mensem.

(3) Staff of the Pack Artillery Training : Commandant, Rs. 500 per mensem; Major, Rs. 225 per mensem; Adjutant (Captain), Rs. 200 per mensem; Captain (Record Officer), Rs. 150 per mensem; Assistant Adjutant (Subaltern), Rs. 150 per mensem; Quartermaster (Subaltern), Rs. 150 per mensem; Subaltern, Rs. 100 per mensem.

Where it is to their advantage existing incumbents may retain the rates of pay and staff pay in force on the date on which their orders take effect until they are promoted or vacate the appointments at present held by them.

## METHODS OF DRAWING PAY AT HOME.

An officer proceeding home under British Service Leave Rules may draw his pay (1) through his regimental agent, in which case he may instruct that agent either to credit his pay as it accrues to a private account or to remit to himself direct, or to any bank which he may select, (2) from the India Office direct, or (3) from the India Office through an agent (or Bank), other than the regimental agent.

An officer under Indian Service Leave Rules may draw his pay either (1) from the India Office direct, or (2) from the India Office through an agent (or Bank).

In each case the officer should send his last pay certificate to the India Office, with an intimation as to the method of issue of pay which he prefers. When the pay is issued to an agent (other than the officer's regimental agent) it is necessary that the agent should be provided with power of attorney.

## RAILWAY WARRANTS TO FAMILIES.

The Secretary of State has decided that families of *personnel* proceeding to Iraq or Palestine will be granted free railway warrants to their home in India and thence to the station to which the head of the family is posted on return to India.

## COMMUTATION OF PENSION.

An Army Instruction publishes regulations for the commutation of pensions of officers of the Indian Services. These regulations are applicable only to officers retired on or after 1st July, 1881, and who are in receipt of service pensions or permanent wound, injury or disability pensions. An officer may be allowed to commute

a portion, not exceeding one-third of his pension or pensions, provided that the amount left uncommuted is not less than £150 a year. An exception to this limit may be made in cases where the total amount of pension or pensions of an officer is less than £180 a year, in which cases a pension not exceeding £30 may be commuted, provided that not less than £120 a year remains uncommuted. In the case of service pensions, commutation may take place on retirement or at any time subsequent thereto. An officer who is still serving may commute such portion of his wound pension as is admissible, the amount of pension (or invalid pension) being calculated at the rate appropriate to his rank and length of service at the time of making application to commute. An officer in Europe desirous of commuting must make application in writing to the Secretary of State for India, stating his desire so to commute, and furnishing information as to his age, rank, and the amount of his pension or pensions. If the Secretary of State for India in Council shall approve the commutation, subject to the report of the Medical Board at the India Office as to the officer's expectation of life, the officer will be informed of the capital sum which will be payable to him in the event of his being found to have an average expectation of life. At the same time he will be instructed as to the date on which he should present himself for examination by the Board. He will have the option of withdrawing his application at any time before the date fixed for his medical examination.

An officer in India desirous of commuting must address the Authorities in that country. He will be required to follow a similar procedure. He may appear before a Medical Board at any station in India that may be convenient, such board being assembled under the orders of the local government and presided over (where practicable) by the chief civil administrative officer of the province.

An officer residing in a Colony and desirous of commuting will be required to follow a procedure similar to that in the case of an officer residing in Europe, except that he will apply to the Under Secretary of State for India through the official from whom he draws his pension. If the application is approved the officer will be duly informed, and a special civil medical board will be assembled under the orders of the local Colonial Government. If the board report that the officer has an average expectation of life, the capital sum already notified to the officer will be paid immediately in the manner indicated by him on his form of application. In cases where an addition to his age is recommended, the officer will be informed of the Board's recommendation, and of the capital sum payable in view thereof. No further steps will be taken pending the receipt of an intimation from the officer that he desires his application to be proceeded with on the revised basis. On receipt of such intimation payment of the capital sum will be authorised.

In any case in which a pensioner shall accept public employment involving the withholding of pension a deduction will be made from the salary payable to him equal to the amount which would have been abated from the pension if it had not been commuted, and in the event of his becoming entitled to a pension in respect of such employment, the amount of such pension granted to him shall not exceed the amount which he might have received had his pension not been so commuted. No refund of any travelling or other expenses incurred by an officer in connection with the commutation of a portion of his pension is admissible.

#### MARRIAGE ALLOWANCES.

An Army Instruction states that sanction has been accorded to the grant, with effect from the 1st April, 1922, to Second Lieutenants and Lieutenants of the British Service, (with the exception of Riding Masters and District Officers Royal Artillery), who are married and were commissioned after serving in the

ranks on normal peace attestations, and were married when so commissioned, of an allowance of Rs. 100 per mensem for the wife and Rs. 25 per mensem for each child, subject to the aggregate allowance for the whole family not exceeding Rs. 150 per mensem.

The proviso above, which requires that an officer in order to be eligible for a marriage allowance should have been married when commissioned from the ranks, shall not apply to those officers who, prior to the 27th February, 1923, were already in receipt of a marriage allowance under the terms of Army Instruction (India) No. 236 of 1921. Such officers will continue to receive the allowance even though they married after being commissioned. A marriage allowance is in no circumstances issuable in addition to staff pay or signalling allowance.

Officers of the class referred to in paragraphs 1 and 2 who are in receipt of staff pay or signalling allowance, which is less than the marriage allowance to which they would be entitled in serving with their units, may draw a marriage allowance instead of staff pay.

When marriage allowance may have been erroneously issued in addition to staff pay or signalling allowance prior to the 27th February, 1923, recovery may be waived, but no repayment will be admissible in cases in which recoveries have already been effected. The allowance is admissible during privilege leave.

#### HOMeward PASSAGE REFUND.

Army officers in India who are authorised to proceed home by a private steamer, and who travel overland from Marseilles at their own expense, can claim a refund between the difference of the cost of the passage to Marseilles and the cost by sea to the United Kingdom. The Controller of Military Accounts at the port of embarkation will deal with such claims and will make the refund to the officer when the shipping company has cleared the account.

#### TERRITORIAL ADJUTANCIES.

The appointment of Adjutant in the Indian Territorial Force has been fixed to be a three years' tenure. A year's extension may be given in special cases.

#### RECRUITMENT, TERRITORIAL FORCE.

The progress made in recruitment for the Indian Territorial Force is satisfactory. A new unit has been formed for Bihar and Orissa, one wing of which will be for Patna University, and the other for the province in general. The battalion will for the present be known as the 11-19th Hyderabad Regiment, but when the strength warrants it a Bihar designation will be given. A committee has been formed at Patna for the development of the corps, and is under the chairmanship of the Hon. Khan Kwaja Muhammad Nur.

#### OUTFIT ALLOWANCE TO TERRITORIAL OFFICERS.

Revised rules relating to the grant of outfit allowance to officers of Territorial Force notify that an officer of the Indian Territorial Force will be entitled to an outfit allowance of Rs. 300 as follows:—Rs. 100 on first appointment and Rs. 200 on confirmation. Provided (a) that he has not received any outfit allowance on being gazetted to an honorary King's Commission previously in the Indian Territorial Force, and (b) he has satisfied his Commanding Officer that he is in possession of the uniform and equipment prescribed for an officer in the branch in which he is serving.

An officer who relinquishes his commission at his own request within three years from the date of first appointment to the Indian Territorial Force will be required to refund the amount paid to him subject to any recommendation to the contrary which may be made by the Officer Commanding the District.

#### HISTORY, INDIAN MILITARY FORCES.

A history of the Military Forces in India is being prepared at Delhi by a senior officer of the staff. The work is intended to show the public the work and record of the troops in India, and to elicit a sympathetic understanding with their own forces. There is not to be any statement of policy or supporting propaganda for aim and object beyond the historical record. The text of the book will deal with the army in India and its complex organisation. A volume of this kind has long been needed as a ready reference for the general public to enable it to place a record value on the work of defence, and to understand the military questions which come forward for discussion in the Legislature.

#### FRANCE.

Colonel J. Fabry, one of the Deputies for Paris, and Rapporteur to the Army Commission to the Chamber, says, in regard to illiteracy in the French Army, that out of 70 conscripts of 20 years of age who have been received recently by two French infantry regiments, only 20 per cent. could be classed as educated in the ordinary sense of the word. Of the remaining 80 per cent., 50 knew how to read and write a little, 20 were able to spell with great difficulty and wrote illegibly, while 10 were totally illiterate.

#### AMERICA.

An urgent warning against the cutting of the Budget for the Army is contained in the annual report to Congress by Mr. Weeks, Secretary for War. "The Army is not only cut below our vital needs," the Secretary says, "but increased appropriation for national defence will soon be necessary owing to the consumption of war stocks." "Since 1921," states the report, "the total number of individuals under military training or in military organisation has decreased from 519,041 to 504,010. This does not spell progress, but rather reaction." Mr. Weeks reaffirms as "the minimum necessary," his recommendations of former years that the enlisted strength of the Regular Army be increased from its present limit of 125,000 men to 150,000 men "at the earliest possible date." He also urges an increase of the commissioned strength of the Regular Army to 13,000 as compared with 12,000, the present limit.

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## ROYAL AIR FORCE NOTES.

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#### HONOURS.

The names of the following Air Force officers appeared in the New Year's Honours Gazette:—

G.C.B.—Air Chief Marshal Sir Hugh M. Trenchard, Bart., K.C.B., D.S.O., A.D.C.

K.C.B.—Air Vice-Marshal Oliver Swann, C.B., C.B.E.

C.B.—Air Commodore David Munro, C.I.E., M.B., M.A., F.R.C.S.(E.).

A.F.C.—Flying Officer Basil Royston Carter.

## PROMOTIONS.

Air Commodore Francis R. Scarlett, C.B., D.S.O., and Air Commodore Henry R. M. Brooke-Popham, C.B., C.M.G., D.S.O., A.F.C., *p.s.c.*, were promoted to Air Vice-Marshal.

## APPOINTMENTS.

The following appointments have been made :—

Air Vice-Marshal Sir Edward L. Ellington, K.C.B., C.M.G., C.B.E., *p.s.c.*, relieved Air Vice-Marshal Philip Game, C.B., D.S.O., *p.s.c.*, as Air Officer Commanding R.A.F. in India. Air Vice-Marshal Game relieved Air Vice-Marshal Oliver Swann, C.B., C.B.E., as Air Member for *personnel* on the Air Council, and Air Vice-Marshal Swann has been appointed Air Officer Commanding R.A.F. Middle East, in succession to Air Vice-Marshal Ellington.

Air Vice-Marshal John F. A. Higgins, C.B., D.S.O., A.F.C., who has commanded the Inland Area since May, 1922, will shortly relieve Air Marshal Sir John M. Salmond, K.C.B., C.M.G., C.V.O., D.S.O., in the Iraq Command.

Air Commodore John M. Steel, C.B., C.M.G., C.B.E., Deputy Chief of the Air Staff, has been made an additional Member of the Air Council.

## OVERSEAS COMMANDS.

## IRAQ.

GENERAL.—On the 30th September, 1923, the Royal Air Force completed one year of control in Iraq.

The Cairo-Baghdad Service Air Mail has operated regularly during the period under review.

A noteworthy trip was made by the Air Mail machine which left Baghdad on the evening of the 6th September and arrived at Cairo on the following day, having refuelled at Ramadi and Amman *en route*, whilst a still faster trip was made by the machine which left Iraq on 30th November and arrived at Cairo on the same day.

A desert convoy provided by No. 70 Squadron re-marked the landing grounds on the Air Mail route as far as L.G. "R" during September.

On the 5th October an air mail machine observed a broken-down Ford car with occupants near Landing Ground 3. On landing it was found that the vehicle had been proceeding across the desert unaccompanied and had broken down three days previously. The driver had left to walk to Ramadi for assistance and the occupants were without food or water. Help was given and a signal sent to Baghdad. A machine from Baghdad went to their assistance, located the missing driver at Landing Ground 2 and took the whole party into Ramadi. The matter is under investigation, as it is strictly forbidden for any car to attempt the desert route alone.

The Nairn Transport Company have now organised a regular weekly motor service between Haifa and Baghdad. The latest model eight-cylinder Cadillac cars are employed. Cars leaving Baghdad spend the first night at Ramadi, the second in the desert and reach Haifa on the evening of the third day. Using this route it is possible to reach London from Baghdad in ten and a half days.

At the invitation of the Air Officer Commanding, a party of influential Shaikhs visited Hinaidi on the 12th September to witness a display of formation and stunt flying.

Aeroplanes are now being used to an increasing extent for the evacuation of sick *personnel* in Iraq.

The reduction of the Imperial garrison in Iraq continues, the 43rd Howitzer Battery R.F.A. embarking for India on the 11th November.

The local forces are steadily on the increase. A nucleus for the 1st Field Battery of the Iraq Army was formed during October.

OPERATIONS.—During the period under review various minor operations were undertaken against certain tribes in the Euphrates valley with complete success. Shaikh Mahmoud continued his anti-British propaganda in the Sulaiminiyah district and demonstration flights were accordingly carried out in the affected areas on the 6th and 7th October with satisfactory results.

### INDIA.

*1st September to 30th November, 1923.*

N. W. FRONTIER.—One squadron has been stationed at Dardoni. During September the Guri Khel and the Ganerai became restive and were threatened with air action. The latter submitted to the threat and their leaders came in. The former, however, definitely defied authority and air action was accordingly taken against them at the end of September and beginning of October. After a pause to allow the people time to comply with our demands and after a further demonstration over their area they finally decided to submit to all our terms.

About the middle of November the Shabi Khel showed signs of obstinacy by ignoring the summons to attend the jirga held by the Resident in Waziristan. In consequence, on the 16th, eleven machines carried out a demonstration flight over their chief habitations in the Lower Shaktu area.

INTERNAL.—During October and November aeroplanes were used at the request of the Punjab Government for dropping pamphlets over a wide area in connection with the Sikh agitation and the proposed arrest of the Parbandhak Committee.

TRAINING AND CO-OPERATION.—No. 20 Squadron has been co-operating with the Staff College, Quetta, their duties including reconnaissances, artillery co-operation, W/T and R/T demonstrations and close reconnaissance and bombing. Numbers of Staff College officers have been carried in the course of this work.

### TRANSJORDAN.

The internal situation in Trans-Jordan has been good since the defeat of the Adwan insurgents last September. The Emir has pardoned most of the leading insurgents who were arrested or captured.

The Wahabis were active at the end of October when a force under Feisal el Dawish carried out a raid on the Hedjaz Railway near Al Ula. After a temporary success they were heavily defeated and driven eastward by Hashimite tribesmen.

During November a counter-raid was made by the Howeitat, who attacked a caravan of the Aqail near Jauf and captured several hundred camels.

Kaf was garrisoned for a short time by a force of 120 men of the Arab Legion specially recruited for the purpose, but they have now been withdrawn.

On the 12th October a convoy of R.A.F. motor transport and two Fords belonging to the Chief British Representative proceeded to Kaf *via* Hazim Wells. This is the first occasion on which heavy transport has been able to reach Kaf.



**PALESTINE.**

No operations have taken place and nothing of outstanding interest has happened.

**EGYPT, ADEN, AND SOMALILAND.**

No operations have been carried out and the situation remains normal.

**NAVAL CO-OPERATION.**

During the last quarter the activities of the Royal Air Force units working with the Navy have been limited by the absence of aircraft-carriers, which have been in dockyard hands. Prior to her refit, which commenced on November 9th, H.M.S. "Argus," however, carried out one month's experimental deck-landing trials.

The flying boat flight at Calshot has been engaged on submarine patrol exercises with submarines of the Atlantic Fleet. From Gosport the torpedo-plane flights have carried out torpedo attack exercises; and at Novar, Invergordon, from the 2nd September to the middle of October, a spotting flight has been assisting with gunnery practices.

The course for Naval Observers which commenced on the 26th November, 1923, ends on the 26th April, 1924. A new course will start on the 25th May, 1924.

**CIVIL AVIATION.**

**THE IMPERIAL AIR TRANSPORT COMPANY.**—The agreement concluded on the 3rd December between the Air Ministry and the British, Foreign and Colonial Corporation for the formation of an Imperial Air Transport Company carries into effect the recommendations of the Civil Air Transport Subsidies Committee made in February, 1922.

It is, perhaps, unnecessary to recount the conditions of the agreement, since they have already been fully reported in the daily press. A point that has not been emphasised as it should be is that the new company will fulfil an important function from the Service point of view. It will keep in training a body of *personnel* highly specialised in one important branch of flying, which may be likened broadly to the maintenance of constant long distance patrols carried out in every kind of weather and, therefore, calling for a high standard of skill in pilotage and the various branches of ground organisation.

All the pilots will be enrolled in the Air Force Reserve or the Auxiliary Air Force and 75 per cent. of the technical and administrative *personnel* will be members of the same Reserve forces or their equivalent in the Dominions.

**COST OF AIR TRANSPORT.**—Major-General Sir Sefton Brancker, K.C.B., A.F.C., etc., Director of Civil Aviation, lecturing a short time ago before the Manchester Statistical Society, made some interesting remarks on the progress which is being made in the reduction of the cost of air transport.

"Immediately after the War," he said, "and when using War pilots and War material and we had only war experience to work on, we estimated that an aeroplane could not be counted on to do more than about 250 hours' flying in the air and that a pilot could not be expected to work more than 200 hours. That was a very conservative estimate which ensured that we were not underestimating the cost. On that estimate we reckoned that to carry a ton weight for a mile would cost something in the neighbourhood of 6s.

"Since that, experience has taught us a great deal. A well-designed and properly looked after aeroplane can fly over 1,500 hours without overhaul and can probably put this time in during one year. Pilots are flying easily up to five or six hundred hours a year, and, with experience and proper medical attention, and a good suitable aircraft, I believe they will be able to do considerably more.

"This progress has naturally led to considerable saving on the estimated cost and I have here the latest costs of the Handley Page Company, flying between London and Paris. The Handley Page machines carry roughly 4,000 lbs. useful load. Last August a fleet of four of these aircraft covered very nearly 33,000 miles at the rate of 3s. 3½d. a mile, which works out to 1s. 10d. per ton-mile, and only about 4d. a mile per passenger actually carried. The same fleet flying only 5,000 miles in the month about a year ago was costing about 14s. 6½d. or 7s. per ton-mile.

"This gives you some idea of the progress we have made towards making air transport pay its own way. In fact, it is obvious now that if between 30 and 40 passengers a day each way between London and Paris could be depended upon throughout the year, an air transport service could be made to pay at a charge of 4d. a mile per passenger, or about £3 14s. fare. This is somewhere about the same as the railway first class fare. The fact is that air transport, like every other form of transport, depends on the demands made upon it for its economy. The greater the demands, the lower the rates that need be charged."

## AVIATION IN FOREIGN COUNTRIES.

### FRANCE.

**I. MILITARY AERONAUTICS.—Changes in Organisation.**—In accordance with an order issued by the Minister of War, the following changes in organisation took place on the 1st January 1924 :—

The 1st Air Regiment (single-seater fighter), stationed at Thionville, was disbanded. The 10 squadrons of which it was composed were distributed as follows :—

- 3 to the 33rd Observation Regiment at Mayence.
- 3 to the 34th Observation Regiment at Le Bourget.
- 4 to remain at Thionville, to be attached to the 38th Observation Regiment which is to be formed during 1924 to take the place of the 1st single-seater fighter Regiment.

Also on the 1st January, 2 squadrons of the 2nd Air Regiment (single-seater fighter) now stationed at Strasbourg, were transferred to the 32nd Observation Regiment stationed at Dijon.

As a result of these changes, all observation Regiments, excepting the 31st, stationed at Tours, now include Fighting Squadrons,

**2. NAVAL AERONAUTICS.—Torpedo Dropping.**—Torpedo exercises are being carried out at regular intervals at St. Raphael Naval Air Station. Exercises are still in the experimental stage, and only two machines are at present available. Both are Farman Goliaths, fitted with floats, one being an ordinary civil type and the other a converted Army bomber. The latter has not been found very satisfactory, and modifications are being made. The other machine has accommodation for a pilot and three or four passengers.

Only one torpedo is carried, which is placed just below the fuselage under the centre section.

The torpedo is released from the observer's seat in the extreme front of the cabin.

3. GENERAL.—*Estimates*.—In common with the rest of the French Budget, credits of equal value to those voted for 1923 will be applicable to the year 1924, so that the sums available for the Air Services from the 1st January to 31st December, 1924, will be as follows :—

	1923.	at par.
Army Air Service - - -	Francs. 414,234,118	16,569,364
Navy Air Service - - -	105,540,081	4,221,604
Colonial - - -	7,053,521	228,140
U. S. of S. - - -	138,463,350	5,538,534
TOTAL - - -	665,291,070	26,611,642

The Vote head "U. S. of S." is that which is granted to the Department of the Under Secretary of State for Air within the Ministry of Public Works. This Department carries out all experimental and research work for the other air services and for civil aviation. It also exercises general control over civil aviation and the placing of contracts with manufacturers for aircraft and aeronautical material for the other air services.

#### UNITED STATES OF AMERICA.

GENERAL.—The Secretary of War recently authorised the publication of a report drawn up by a Committee appointed to investigate the present status and future condition of the Army Air Service. This report is pessimistic and considers that an alarming condition exists due to shortage of flying *personnel* and equipment, and that the peace organisation of the Air Service now bears no relation to war requirements and affords little or no foundation upon which war requirements in either *personnel* or material can be built. To remedy this state of affairs it is recommended that for the next ten years 25 million dollars be appropriated annually for new construction and operating expenses.

Although the Naval Air Service is, in fact, in a much sounder condition than the Army Air Service, the Secretary of the Navy in his annual report to Congress stated that the present situation both as to *personnel* and equipment is one to be viewed with concern and recommends a five years' programme of naval aviation instruction. Apart from this the Board for Development of Navy Yard Plans recently recommended a Twenty Year programme for the development of Naval Air Stations, involving an expenditure of 16,485,835 dollars. This project has yet to be approved by Congress.

The Goodyear Company of Akron, Ohio, have taken over the exclusive aeronautical rights for the U.S.A. of the Zeppelin Company of Friedrichshafen.

MILITARY AVIATION.—The plans and arrangements for a flight of four or five Army machines round the world this summer are progressing. The proposed route is from Washington, D.C., across the American Continent, up the British Columbia coast, along the Aleutian and Kuril Islands to Japan. Thence to China, French Indo-China and across India to the Persian Gulf. The flight will then proceed to Europe *via* Bagdad, Damascus and Aleppo. Paris and London will be visited, and the return journey is to be made *via* Scotland, Iceland, Greenland and Canada.

NAVAL AVIATION.—There are now 14 squadrons of naval aircraft operating with the Fleet, these being two Observation, one Torpedo and Bombing, one

Scouting and one Fighting squadron with the Atlantic Scouting Fleet; three Observation, one Torpedo and Bombing, one Scouting and three Fighting squadrons with the Pacific Battle Fleet; and one Torpedo and Bombing Squadron with the Asiatic Fleet.

On 4th November, 1923, Lieutenant Williams, U.S.N., the winner of the last Pulitzer Race, established a world's speed record on his Curtis R.2 C. racer, which is equipped with a Curtis Special D.12 engine developing 500 h.p. Over four flights, two up and two down wind, he averaged a speed of 266.6 miles per hour.

### ITALY.

#### REORGANISATION OF ITALIAN AIR FORCE.

ADMINISTRATION.—The Italian Air Force is now a separate entity and the administration is much the same as that of the Royal Air Force.

LANDPLANES.—There are three wings: Observation, Pursuit and Bombardment.

These are divided into Groups and the Groups into Squadrons.

There are 15 Observation, 10 Pursuit, and 5 Bombardment squadrons, all of which have at present 12 machines each, with the exception of those with twin-engined machines, which have only 9 per squadron.

These figures are now being increased, and when the 1924 programme has been completed there will be two Observation Wings, one Pursuit Wing, and one Bombardment Wing, the numbers of squadrons being 20, 14 and 12 respectively. The number of machines per squadron will be altered to 18 for Observation and Pursuit, and 12 for Day Bombardment, and 9 for Night.

SEAPLANES.—There are 4 Groups of seaplanes. In the 1924 programme there will be more Squadrons, probably 20 in all.

AIRCRAFT CARRIERS.—Italy has no Aircraft Carriers.

OTHER UNITS.—In addition to the above there are the following:—

Aerial Gunnery School.

Aeroplane and Motor Mechanics School.

(In the present programme provision is made for another Aerial Gunnery School, and also an Observation School.)

Dirigible Group composed of three stations.

### JAPAN.

GENERAL.—Reports as to damage done by the earthquake to aircraft stations are still meagre, but the latest reports show that the damage done was not so great as at first anticipated.

Minor damage was done to the sheds and slips at Yokosuka, but there were no fatalities, and the work of the station has not been seriously interfered with.

The air station at Kasumigaura was undamaged.

EMPLOYMENT OF BRITISH EXPERTS.—The remaining members of the British Aeronautical Mission left Japan during December, 1923. The only British *personnel* now remaining are the three employees of the Mitsubishi Company, and another Englishman who is designing a machine for the Japanese Navy.

### GERMANY.

After a lapse of many months aeronautical supervision recommences in January, 1924. The Conference of Ambassadors decided on 21st November, 1923,

that no further delay could be tolerated, and the German Government was so informed.

The situation is such that supervision can only be carried out in a modified form, the German Government professing inability to guarantee the personal safety of inspecting officers in certain districts, such as Bavaria.

With the exception of the London-Berlin and Königsburg-Moscow air routes, aviation practically ceased at the end of October. This is partly due to the climatic conditions during the winter months, but probably due, to a greater extent, to the fact that the Government subsidy ceased as from October 31st.

There is, as yet, no indication as to whether the subsidy will be continued next year or not.

#### RUSSIA.

Before the present reorganisation of the Russian Air Force was started the Soviet Government adhered to the old Imperial organisation, which consisted of a military and naval service sharing a common department for the supply of equipment. The new formation consists of a separate Air Force with naval and military branches, the Chiefs of which are under the Commander-in-Chief of the Russian Air Force. There are naval units on the coasts of the Black and Baltic Seas, but they have few serviceable machines available, and development in this branch, as in the rest of the Russian Air Force, is severely handicapped by the existing financial and economic conditions of the country.

#### BALTIC STATES.

The Latvian Naval Air Service consists of three seaplanes. A programme has been drawn up for the purchase and equipment of 18 seaplanes, but has not yet been submitted to Parliament.

Lithuania proposes to form a hydroplane squadron of six machines, which is to be stationed at Memel.

Estonia has eight serviceable seaplanes.

#### AIRSHIPS.

##### ITALY.

The Italian naval airship "Esperia," formerly the German "Bodensee," has undergone a thorough refit at Ciampino, where she is now in commission. The "Esperia" has carried out several instructional flights, and during the recent International Air Conference at Rome took several of the delegates for a six hours trip. She is practically a sister ship of the French rigid "Méditerranée." This airship brought the French delegates for the conference from Marseilles to Ciampino.

Other Italian airships at present in commission are the Forlanini F. 6, semi-rigid, of 630,000 cu. ft. capacity, and two small semi-rigids of the O.S. type. These ships have a capacity of 180,000 cu. ft., and have a good performance for their size.

##### AMERICA.

The American rigid airship Z.R. 3, now under construction at Friedrichshafen in Germany, will not be ready to cross the Atlantic before the spring. The delay is attributed to labour troubles in Germany, which have held up delivery of the ship's engines.

## FRANCE.

The ill-fated French naval airship "Dixmude," formerly L. 72, was surrendered by Germany to France during August, 1920, in fulfilment of the Treaty of Versailles.

Completed after the Armistice at Friedrichshafen, she had a length of 743 ft., diameter 78 ft., height 91 ft., and a capacity of 2,400,000 cu. ft. The gross lift was 72 tons, with a disposable lift (fuel, crew, w/t, bombs, etc.) of 45 tons, and six 300 h.p. Maybach engines gave the ship a maximum speed of 75 m.p.h. The cruising speed with all engines at half speed was 57 m.p.h.

On her last flight the "Dixmude" was carrying out a 72 hours' instructional cruise from her base at Cuers to the Sahara desert and back. For such an extended flight she was structurally unsuited, especially as there was only the home base to make for in the event of trouble.

The following letter, which was stated to have been written by the late captain of the "Dixmude," Lieut. Du Plessis de Grenédan, to the editor of *L'Aéronautique* of November, 1920, shows the views which he held on the construction of this ship:—

"To what use can we put the German Airship L. 72, now christened the 'Dixmude'?

"It is no use giving calculations to demonstrate what the airship can do, because *she will only serve the purpose for which she was built.*

"It is all very well on paper to make her cover 15,000 km. (9,300 miles) at 100 km/hr. (63 m.p.h.), to make her carry numerous passengers to America, to use her as a scout for the battleship squadrons on distant seas. The 'Dixmude' cannot do these things because she was not built for them. She was built, we must remember, about three years ago, for very special war operations, and, if hostilities were to break out again to-day, she would probably not answer requirements at all.

"The purpose for which the airship was originally laid down was for bombing British towns from a very high altitude.

"The custom was to start off during the afternoon and cross the enemy coast during the night at as high an altitude as possible. When the bombs had been dropped, the airship returned to its base at an altitude of between 7,000 (22,965 ft.) and 8,000 (26,246 ft.) metres. The whole trip took about 20 hours and placed considerable strain on the crew, but only for a short period.

"The material, for such an exploit, naturally had to fulfil very special conditions.

"In the 'Dixmude' we have an example of marvellous construction. The exact purpose for which it was intended is made plain. We can ascertain exactly the deformations imposed on the original type in order to obtain the most adequate airship for the purpose proposed. I use the word 'deformations' intentionally because the 'Dixmude' is far from being a perfect model such as we should copy in order to obtain the type required by our own Navy.

"The German constructor was faced by a two-fold problem. On the one hand he had to reduce the specific dead weight to a minimum in order to gain altitude by static means and, on the other hand, he had to increase the speed as much as possible in order to increase to a maximum the dynamic means of manoeuvring.

"The framework was lightened as far as possible, chiefly by the adoption of an interval of 15 metres (49 ft.) between the main frames instead of only 10 metres (32 ft.) as in the former types. Further, an effort was made to reduce the head resistance by adopting *nacelles* with very much reduced cross-section and by replacing the flat externally-braced tail-surfaces, which offered a lot of head resistance, by triangular tail-surfaces, with internal bracing.



"These two essential modifications do not seem to have been equally successful. The unbraced tail-surfaces seem to constitute a real progress and should be retained. As regards the other modifications, we should be slow to pronounce judgment, and should adopt nothing without conclusive experimental results.

"It is, anyhow, obvious that the German constructor's two special points of view were not ours. In our case, the reduction in dead weight is of secondary importance.

"A big cruising airship requires to have strength, endurance—in short, to be solidly built. The 'Dixmude' is a fragile structure, incapable of intensive service. It was designed for war bombing raids, not for long voyages.

"On the other hand, the increase in dynamic resources, *i.e.*, in speed, is of interest. The L. 72 is said to have been designed to travel at 120 km./hr. (75 m.p.h.). This is not sufficiently fast for present day needs. We are not living in 1918, and nowadays 150 km./hr. (93 m.p.h.) is a minimum, below which the speed should not fall. About 200 km./hr. (125 m.p.h.) is a more suitable speed for a scout airship. Nowadays speed is obtained by increasing the number of engines. By doing this, if altitude is lost, endurance and reliability are enhanced. Therefore speed should be considered a requirement of prime importance.

"It appears, moreover, that in order to keep the framework light, the German constructor provided for a space of 15 metres between the frames. This is detrimental to speed, at any rate with the present form of the hull.

"Finally we must not lose sight of the fact that the actual shape of the L. 72 is defective.

"The German constructors, not wanting to modify their workshop equipment, kept the diameter constant at the main section, whilst considerably increasing the volumes. They thus embodied a large cylindrical portion in the middle of the envelope which is highly detrimental to speed. The L. 72 was to be the last airship built on this principle. Let us learn by experience. It would be possible to retain the same overall length and merely to correct the diameter of the frames in the cylindrical portion in order to give the airship a better streamline form. The volume would thus be increased by 5,000 (200,000 cu. ft.) or 6,000 cubic metres. The increase in useful load thus realised would permit of strengthening the framework and an improvement in accommodation and very probably a higher speed would be obtained by the addition of two *nacelles* in the centre portion of the airship."

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## PRINCIPAL ADDITIONS TO THE LIBRARY.

November, December, 1923.

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NEILL'S BLUE CAPS. Vol. 1. 1639-1826. By Colonel H. C. WYLLY, C.B.  
Illustrations and Maps. 8vo. Gale & Polden, Ltd., Aldershot. (Presented  
by the Officers, 1st Bn. Royal Dublin Fusiliers.)

- HISTORY OF THE THIRTIETH REGIMENT, NOW 1ST BN. EAST LANCASHIRE REGIMENT, 1689-1881. By Lt.-Colonel Neil Bannatyne. Illustrations and Maps. 8vo. (Littlebury Brothers.) Liverpool, 1923. (Presented by the Subscribers to the Regimental Fund.)
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- 20TH HUSSARS IN THE GREAT WAR. By Major J. C. Darling, D.S.O. 8vo. Published privately, 1923.
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- WITH THE 48TH DIVISION IN ITALY. By Lt.-Col. G. H. Barnett, C.M.G., D.S.O. 21s. 8vo. London, 1923.
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- THE DEFENCE OF LONDON, 1915-18. By Lt.-Col. A. Rawlinson. 7s. 6d. 8vo. London, 1923.
- THE LIFE OF THE RT. HON. SIR H. CAMPBELL-BANNERMAN, G.C.B. By J. A. Spender. 2 vols. 42s. 8vo. London, 1923.
- THE ROCK. Illustrated with Various Legends, etc., descriptive of Gibraltar. By Major Hort. Illustrations. 8vo. London, 1839. (Presented by Major-General G. G. A. Egerton, C.B.)
- THE SIEGE OF KIMBERLEY, 1899-1900. Illustrations. Oblong 8vo. Kimberley. N.D. (Presented by E. W. Goss, Esq.)
- THE ITALIAN MILITARY ACTION IN THE WORLD WAR FROM 1915-17, AND AN AUSTRIAN VERSION OF VITTORIO VENETO DIVULGED IN FRANCE Maps. 8vo. Hugh Rees London, 1923. (Presented by the Publishers.)
- A FIELD ARTILLERY GROUP IN BATTLE. A tactical study based on the experiences of 2nd Bde., R.F.A., during the German offensive, 1918, the Hundred Days' Battle and the Battle of Cambrai (1917). By Col. W. H. F. Weber, C.M.G., D.S.O. Maps. 10s. 6d. 8vo. (R.A. Institution). Woolwich, 1923. (Presented by the Secretary, R.A. Institution, Woolwich.)
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NATIONS OF TO-DAY. Edited by J. Buchan.

- (a) Great Britain. 2 vols. 15s. each. 8vo. London, 1923.
- (b) France. 15s. 8vo. London, 1923.
- (c) British America. 15s. 8vo. London, 1923.
- (d) Japan. 15s. 8vo. London, 1923.
- (e) Yugoslavia. 15s. 8vo. London, 1923.
- (f) Baltic and Caucasian States. 15s. 8vo. London, 1923.

THE AUXILIARY PATROL. By E. K. Chatterton. 12s. 6d. 8vo. London, 1923.

CRÓNICA ARTILLERA DE LA CAMPAÑA DE MELILLA DE 1909. 2 vols. Maps. 8vo. Madrid, 1910. (Presented by Major M. C. Maunsell.)

OFFICIAL HISTORY OF THE WAR. NAVAL OPERATIONS. Vol. III. By Sir J. Corbett. 8vo. London, 1923.

The four following books are presented by the Australian War Museum :—

AUSTRALIAN WAR PHOTOGRAPHS. Edited by Capt. G. H. Wilkins, M.C. 8vo. Published by the A.I.F. Publication Section, Australia House. London, 1919.

AUSTRALIA IN PALESTINE. 8vo. Angus & Robertson, Ltd. Sydney, 1919.

THE ANZAC BOOK. 8vo. Cassell & Co., Ltd. Melbourne, 1916.

THE AUSTRALIANS' FINE RECORD: THE BATTLE OF AMIENS AND AFTER. 8vo. A.I.F. Publication Section. London, nd.

MARNESCHLACHT UND TANNENBERG. By General von F. Francois. 8vo. Berlin, 1920.

The three following books were presented by Capt. A. Hilliard-Atteridge :—

ÉTUDE SUR LES OPÉRATIONS COMBINÉES DES ARMÉES DE TERRE ET DE MER. Par M. R. Degouy. 8vo. Paris, 1884.

DES OPÉRATIONS MARITIMES CONTRE LES CÔTES ET DES DÉBARQUEMENTS. Par M. D. B. G. 8vo. Paris, 1893.

MENELIK ET NOUS. Par H. Le Roux. 8vo. Paris, 1901.

THE HISTORY AND PROGRESS OF METALLURGICAL SCIENCE. By Sir R. A. Hadfield, Bt. 8vo. Birmingham University, 1923. (Presented by the Author.)

THE PROBLEM OF ARMAMENTS. By A. G. Enock. 6s. 8vo. Macmillan & Co., Ltd., 1923. (Presented by the Publishers.)

EQUATORIA, THE LADO ENCLAVE. By Major C. H. Stigand, O.B.E. 21s. 8vo. London, 1923.

TURKEY, THE GREAT POWERS AND THE BAGHDAD RAILWAY. A Study in Imperialism. By E. M. Earle. 10s. 6d. 8vo. London, 1923.

- A COLLECTION OF OFFICIAL PUBLICATIONS ON THE DANISH ARMY (1923). (Presented by the Secretary of the Danish War Office.)
- THE KING'S ROYAL RIFLE CORPS. CHRONICLES FOR THE YEARS 1919, 1920, 1921 and 1922. 8vo. (Warren & Son, Ltd.) Winchester. (Presented by Colonel R. Byron, D.S.O.)
- BETTING BOOK, 2ND BN. (78TH) SEAFORTH HIGHLANDERS, 1822-1908. Printed privately. 8vo. London, 1909. (Presented by Maj.-General Granville Egerton, C.B.)
- THE GERMAN ARMY, 1911. Photographs and Postcards. (Presented by Maj.-General Granville Egerton, C.B.)
- THE WORLD CRISIS, 1915. By the Rt. Hon. Winston S. Churchill, C.H. Vol. II. 30s. 8vo. London, 1923.
- SHIP-MODELS. By E. K. Chatterton. Illustrations. £3 3s. 8vo. London, 1923.
- THE LIFE OF GENERAL THE RT. HON. SIR REDVERS BULLER, V.C., G.C.B. By Colonel H. Melville. Illustrations. 2 vols. 32s. 8vo. (Edward Arnold & Co.) London, 1923. (Presented by the Publishers.)
- RULES AND ARTICLES FOR THE BETTER GOVERNMENT OF OUR HORSE AND FOOT GUARDS AND ALL OUR OTHER LAND FORCES. 12mo. London, 1718. (Presented by Lt.-Col. L. C. R. Messel, O.B.E., T.D.)
- DIE SCHLACHTEN IM SOMMER 1918 AN DER WESTFRONT. General A. D. von Zwehl. 8vo. Berlin, 1921. (Presented by Major C. F. Atkinson.)
- VON FALKENHAYN, HINDENBURG, LUDENDORFF. Oberlieut. C. Wetzell. 8vo. Berlin, 1921. (Presented by Maj. C. F. Atkinson.)
- MSS. NOTES ON BRITISH WAR MEDALS. By H. L. Swinburne. (Presented by Major C. F. Atkinson.)
- HERBSTSCHLACHT IN MACEDONIEN, 1916. G. Strutz. 8vo. Berlin, 1921. (Presented by Major C. F. Atkinson.)
- THE CIVIL WAR IN AMERICA. 2 vols. By W. G. Shotwill. 36s. 8vo. London, 1923.
- THE EMPIRE AT WAR. Edited by Sir Charles Lucas, K.C.B., K.C.M.G., Vol. II. 25s. 8vo. Humphrey Milford, Oxford University Press. London, 1923. (Presented by the Publishers.)

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## NOTICES OF BOOKS.

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**Admiral of the Fleet Sir A. K. Wilson.** By VICE-ADMIRAL SIR EDWARD E. BRADFORD, K.C.B. (John Murray & Co.)

It may be doubted whether any well-known man has ever made the task of his biography so difficult as Sir A. K. Wilson. He entered the Navy in 1855, and it was not until nearly forty years later that his extraordinary accomplish-

ments and ability became generally known. He did not fail to obtain recognition in the Navy; but, owing to his reticence and his intense application to professional duties, he was known only to those with whom he had been in intimate contact, or to those whose duty it was to weigh up claims to promotion from the official *dossiers* at the Admiralty. Admiral Sir Edward Bradford has done an extraordinary service to naval literature. He has traced, step by step, the career of the great seaman with whom he was closely connected, and has so arranged his narrative that the personality and character of the central figure are never hidden behind the mass of facts which the author has collected.

Admiral Wilson's life is a study in the enormous development of naval science in the nineteenth century. His first voyage was in the "Powerful," which made for the Crimea under sail; at the close of his career he was advising the Admiralty about the operations of Sir John Jellicoe's fleet of super-dreadnoughts; he had associated himself with almost every step in the progress from the one state of things to the other. His name was connected with the latest developments in naval mining and counter-mining, with fleet gunnery and signalling, and, above all, with the scientific system of manœuvring and battle tactics which culminated at Jutland. Had he said "*Quorum pars magna fui*" with regard to the complicated organisation of the Grand Fleet in 1914 and its immense accumulation of scientific apparatus, nobody could have questioned the justice of his claim.

It is difficult to select a particular point in a book so full of interesting matter; but the recent publication of Mr. Winston Churchill's memoirs draws attention automatically to the last section of Sir Edward Bradford's book. The author's scrupulous account of the causes which led to Sir Arthur Wilson's dismissal is a very suitable corrective to Mr. Churchill's presentation of the matter. Sir Edward Bradford has simply printed the paper in which Sir Arthur discussed the project of forming a naval staff. The view expressed was that a war staff actually existed. "The thinking in the Navy is mainly occupied with producing the most perfect ships, guns and machinery, with crews trained to make the most perfect use of them and constantly practised under conditions approaching as nearly as possible to modern war. All this requires an enormous thinking department; but the staff that does this thinking is not called by that name. It is comprised by the principal members of every department at the Admiralty supplemented by the admirals, captains, executive officers and heads of the different departments in every ship afloat, all organised for one end." This line of argument is the key to this intensely interesting paper. Sir Arthur Wilson's attitude with regard to the formation of a naval war staff was simply that all requirements could be met by the Admiralty organisation. It was certainly not an attitude of bald opposition; for it foresaw the need of a future expansion of the existing departments.

Read in conjunction with some of the larger problems of war, Sir Edward Bradford's book is of exceptional interest. It is clear to any student of the late Sir Julian Corbett's history that, from 1914 to 1918, the cardinal vice in our major strategy was that a wrong direction was given to our military and naval power by the adoption of continental doctrines. The false analogy between land and sea warfare which is so often drawn, and the hasty, inconsequent deductions which follow from the original false premiss, are only a reflection of the arguments which Sir Julian Corbett spent the best part of his life in combatting. Sir Edward Bradford shows how Admiral Wilson was confronted with these perpetually recurring errors, and how he attacked them. His emphasis upon the essential differences between staff work on land and at sea might well be printed in every staff manual issued to the fleet for the instruction of officers.

**La Campagne de Bruix en Méditerranée. Mars-Août 1799.** By  
LIEUTENANT DE VAISSEAU G. DOUIN. Ouvrage publié sous la direction  
du Service Historique de la Marine.

Judging by the varied subjects dealt with in the series of books now being published under the supervision of the Section Historique de l'État-Major de la Marine, one may reasonably conclude that the department is prepared to assist any officer who is qualified and ready to make a solid contribution to naval science. Of the four works which have appeared, three deal with modern subjects, whilst the fourth, now under review, is strictly historical. Lieutenant de vaisseau Douin has compiled it in a severely scientific spirit; and the best comment one can make upon his work is to summarise the interesting episode which he has described. This is easy to do, for his narrative is of a lapidary precision.

After the battle of Aboukir the Mediterranean States combined their forces for a new struggle against France. The Russians and Turks formed an alliance, and their fleets entered the Mediterranean; Malta revolted and, later, Naples declared war. "Before France could realise the extent of her defeat, the enemy flood (*la vague ennemie*) was breaking against our advanced posts and threatening to submerge them. If these bastions of our outer defences gave way, we could only expect a rapid infiltration of our inner positions; northern Italy would be taken in reverse through the Adriatic, and all our splendid conquests thrown into the melting pot." The answer of the French government was instantaneous. They revived the old family pact with Spain in a new form, created a new fleet by a stroke of the pen, and made "the Spanish Bourbon the grand admiral of the Directory."

A letter from Buonaparte at the end of the year, urging that the whole naval force of France should be concentrated in the Mediterranean, put the Directory further on their mettle; they issued an order that "the naval army should be equipped, provisioned and made ready for sea as soon as possible"; and it fell to admiral Bruix, the minister of the marine, to reconstruct a fleet out of the naval *débris* still in the possession of the republic. He was, possibly, the finest commander in the republican navy, and he overcame every difficulty; for by the spring of the year 1799, after a tremendous administrative effort, he assembled in Brest a fleet of 24 sail and 13 frigates ready for action. Later, he was appointed to command it in person, and in the spring of the year received orders "to penetrate into the Mediterranean and to destroy, or expel, all the forces of the enemy that he may find there." The diplomatic negotiations of Talleyrand had secured the co-operation of the Spanish fleet, which was to break the British blockade when Bruix arrived off Cadiz, and place itself under his orders.

Although the preparations at Brest had been reported to the British government by spies, and by Lord Bridport's blockading squadrons, Bruix got away without an action, and made to the southward. When off Cadiz, a strong gale prevented him from joining Mazarredo, the Spanish admiral, and separated him from a British force under Lord Keith, although, for some hours, an action seemed inevitable. Bruix then made through the straits; but the damage his fleet had suffered forced him to take refuge in Toulon. Mazarredo had followed him into the Mediterranean, when a second gale drove his whole fleet into Cartagena, with a heavy list of damages to masts, spars and hulls.

On arriving at Toulon, Bruix found that the situation upon which his orders had been drawn up had altered radically. The Austro-Russian concentration in northern Italy was driving the French out of the country. Moreau, the



commander-in-chief, was in full retreat; but he had left a detachment in Genoa to try and keep a line open for the retreat of the Naples army. Bruix at once sailed for Liguria to concert a plan of combined operations with Moreau, and to carry reinforcements and provisions to Desolle in Genoa. Throughout these operations the British naval command was completely baffled. When Bruix left Brest, our first dispositions had been taken on the assumption that a descent on Ireland was intended: but when we knew that the expedition had reached Toulon, our admiral rearranged his forces so as to cover Minorca and, at the same time, keep a watch upon Mazarredo in Cartagena.

Bruix now carried out his plan of bringing assistance to the French armies in northern Italy, and then doubled back on Cartagena. Whilst off Genoa he was very nearly brought to action by Lord Keith's squadron, which sailed eastwards for the Ligurian coast, and then turned back to cover Minorca; the fear of a descent upon the island thus continued to cripple our operations. After his junction with the Spanish fleet, Bruix had to consider whether the plan, which he had, up to then, been striving to carry out, was still feasible. Could he still disengage the French troops in Malta, carry succour to the army in Egypt, and recover Corfu? He decided that he could not. The whole project had been drawn up on the assumption that, by acting rapidly, he might get us at a numerical disadvantage. By the time he reached Cartagena he knew that British reinforcements had arrived, and that, prompt and skilful as he had been, he was too late. The Franco-Spanish squadron, therefore, made for Brest and reached it in August. "None of the objects striven for was achieved, and the campaign, sterile in results, settled the fate of the garrison at Malta and the army in Egypt."

Lieutenant Douin's verdict is doubtless just, but the negative results of the operation do not detract from its interest. It is a fair example of one of the most difficult and baffling problems in sea warfare: the power of a weaker fleet to distract an enemy; to make him loosen his concentration; and then, in the prevailing uncertainty, to strike a blow. This preoccupation has dominated the minds of naval commanders for centuries. When Admiral Scheer put to sea on 30th May, 1916, and later, on the 19th August in the same year, he was confronted with the same problem that had faced Bruix 117 years before. The only difference is that he did not solve it so well. Lieutenant Douin's book is a real contribution to a scientific study of sea warfare. He has confined himself to a narrative of admirable simplicity and clearness, and to a brief but most cogent commentary upon it. His sobriety of manner, and impersonal treatment of his subject, make it all the more incumbent upon his reviewers to draw attention to the brilliant abilities which the book displays.

**The History of the Thirtieth Regiment—now 1st Battalion East Lancashire Regiment—1689-1881.** By COLONEL NEIL BANNATYNE. (Littlebury Bros.)

To tell in full detail the story of nearly two hundred years of the life of a regiment of the line is no small undertaking, and there can be few regimental histories which have been compiled with such meticulous care as this one, or which bear on every page such clear signs of deep research and patient investigation.

Raised in 1689, the year following that in which "Dutch William" landed in England and displaced his father-in-law upon the throne, the 30th Foot, or Lord Castleton's regiment, recruited chiefly in Lincolnshire, was intended with others created at the same time as a reinforcement to the army in view of the war now declared against France. Within a very few months the regiment was

complete, and was then ordered first to Scotland, where Dundee had raised the standard of rebellion, and then to Ireland; but in neither country was the 30th to see service, and it was not until 1692 that it formed part of the force sent to Flanders and was present at the siege of Namur. On the signature of the Peace of Ryswick the Regiment came home and was then disbanded—a fate which was to overtake it once again during its existence; but in 1701 it was re-raised as a Marine Corps and took part in the capture and defence of Gibraltar, and was engaged at Barcelona, St. Estevan, Alicante and the capture of Sardinia and Minorca. Disbanded again in 1702, it was not re-raised until 1714, when the Regiment was reinstated in its former seniority in the Army, and then served in the expedition to L'Orient and as marines in Lord Anson's victory off Finisterre. During the next few years the 30th took part in many minor expeditions for which that period was remarkable, gaining valuable experience and the reputation of a corps upon which a commander could depend equally in peace and war. It was employed in America during the War of Independence, mainly under Rawdon in the Carolinas, and about this time was created the Cambridgeshire Regiment, thus acquiring a territorial connection which endured for upwards of a century.

During the early days of the long war with France, the Regiment saw service at Toulon and in Egypt, and was then given a second battalion; the first went to India and fought in the Mahratta War, while the second served throughout the best part of the war in Spain and Portugal, was at the siege of Antwerp, and at Quatre Bras and Waterloo. At the peace of 1815 the second battalion ceased to exist, and many years of home and colonial service followed, broken only by the Crimean War, where the 30th formed part of the Second Division, suffered much loss and gained fresh honours.

Colonel Bannatyne has compiled a fine record and must have exhausted all possible sources of research, and has not only provided an extraordinarily complete record of the daily life of the Regiment during two centuries, but gives an almost superabundance of detail about individuals who served in it. He has been unusually fortunate in the provision of diaries—notably one for the Waterloo period by Macready, the younger brother of the actor, who served in the Regiment as an officer. The book is thoroughly well-produced, mapped and illustrated.

**The Essex Regiment, 1st Battalion (44th), 1741 to 1919.** By JOHN WM. BURROWS. (John W. Burrows & Sons, Ltd.)

This book is the outcome of a project to narrate the deeds of the Essex units in the recent War in five volumes, the two first of which are to contain the full records of the regular battalions of the Essex Regiment from their creation up to the present time. At no previous period in the history of the British Army has there been a greater disposition to compile and publish the records of the units of which it is composed; unfortunately, the time is not especially propitious—the expenses of publication have lately very appreciably increased, while military funds are at their lowest. It is to be regretted, inevitable as it may be, that the story of so old a Regiment as the 44th should need compression within the space of some 150 pages; but the necessity once admitted, the work could hardly have been more satisfactorily carried out. It would appear from a notice on the title page of this initial volume of the series, that the Essex Territorial Army Association have rendered some assistance—an unusual and praiseworthy departure which might well commend itself to kindred bodies all over the United Kingdom.

Raised during the war of the Austrian Succession, the 44th was known during its early life by another number, and as the 55th saw service at Preston Pans in the "Forty-Five," and in Flanders under the Duke of Cumberland; but it was as the 44th that the Regiment sailed for America for service under Braddock, forming, with the 48th Foot, the first substantial force of British regular troops that had ever until then landed on American soil. Twenty years later, the Regiment landed once more in North America, and although arriving just too late to join in the repeated and bloody attacks upon Bunker's Hill, it served throughout the remainder of the war until it closed in 1786. When, seven years later, the long war began with Revolutionary and Imperial France, the 44th was employed in Flanders under the Duke of York; in the West Indies and in Egypt under Abercromby, and in the Mediterranean; and then, sailing again for America, was at Washington under Ross and at New Orleans under Pakenham. In the Peninsula, the 44th was represented—and worthily represented—by a second battalion raised in 1803, which served with the 5th Division at Sabugal, Fuentes d'Onor, at Badajoz, at Salamanca—when they captured the Eagle of the 62nd Regiment—and at Burgos; and then, returning home, accompanied Graham to Flanders, and was with Wellington again in the Waterloo campaign.

The 44th served in the first Burma War, was practically annihilated in the retreat from Kabul, fought in the Crimea, in China and in South Africa. When the Great War broke out, the Regiment was stationed in Mauritius and South Africa, and came home to help form "the Incomparable 29th Division," the story of whose deeds in Gallipoli and in France is familiar to all students of the war.

In so necessarily compressed a history as is this, it is impossible to deal with the peace-time life of a Regiment, and to give any picture or detailed account of the manner in which, during long years, it has prepared itself so that, when the time came, it should be ready for whatever might befall; but this record is not unworthy of a Regiment which has served in nearly all our wars, small and great, and which out of the 183 years of its glorious life has spent no more than 25 in the country where it was raised and whence its recruits have been drawn.

**Official History of the War. Naval Operations.** Vol. 3. By SIR JULIAN S. CORBETT. (Longmans Green & Co.)

It is not often that an author's last work represents him at the zenith of his powers; yet this admirable volume will probably rank as the late Sir Julian Corbett's highest achievement. It traces the course of the naval war in the Mediterranean from May, 1915, to the evacuation of the Dardanelles; and it carries the narrative of events in home waters to the battle of Jutland. Sir Julian Corbett has, therefore, succeeded in presenting the public with the first complete and impartial account of that great action.

His description of the battle and its preliminaries has cleared up several points which have hitherto been extremely obscure. First, Sir Julian shows that the Admiralty had perfected a system of intelligence that the German Fleet could not move out of harbour undetected, and that even the preliminaries to a fleet movement were recorded in Whitehall almost as soon as they were made in the Heligoland Bight; secondly, he shows that the disasters suffered by the battle cruiser fleet were caused as much by tactics and leadership as by the construction of the ships engaged; thirdly, he argues with a force and knowledge which almost make his contention a proof, that Lord Jellicoe's tactics for thwarting a torpedo attack were inevitable in the circumstances; and he proves outright that, on numerous occasions previously, British and German fleet commanders had acted

in the same fashion. With regard to the deployment of the fleet, Sir Julian's argument is final: no alternative method would have secured the same advantages.

To have presented so much that was new, and to have bound together his facts in so clear and cogent a fashion would, in itself, have been a great achievement; but the originality of the book consists in more than its disclosures. The narrative is of an extraordinary brilliance; and it succeeds in adjusting the battle to its historical perspective without ever wandering from the facts at issue. It would be impossible to find a finer example of historical knowledge focussed upon a modern problem than in Sir Julian's discussion of the system of battle tactics pursued by the British and German fleet commanders; of Admiral Jellicoe's endeavour to manœuvre his fleet in such a fashion that he would send down a cataract of shell upon his weaker opponent, from a single, deployed, line of battle-ships; and of Admiral Scheer's determination to avoid the blow by "*kehrtwendung*" movements, combined with minor attack from his torpedo craft. One realises how the author concentrated his unrivalled knowledge of naval history to do justice to each side by setting out every intricacy of the tactical problem with which each fleet commander was confronted. It is perhaps this quality of absolute impartiality which is the most striking feature of the book. It effects more than the presentation of facts; it permeates the style, giving it an added polish and an urbanity of its own. *Suave etiam belli certamina magna tueri.*

**German Strategy in the Great War.** By LIEUT.-COLONEL PHILIP NEAME, V.C., D.S.O. (Edward Arnold.)

This book is written with an admirable simplicity of style and language and is a very valuable contribution to the study of the Art of Command in War.

The best war histories, written within measurable distance of the event, have nearly always come from the beaten side; for in the convulsions which naturally follow defeat, little sensitiveness is felt for the reputations of either Statesmen or Soldiers who have contributed to this result. The late War has been no exception to the rule and the mass of authentic information which has been made public from the German side has enabled the author to produce, not only a reliable survey of the German strategical plans before and during the War, but also a book full of human interest in the light it throws on the personality and character of the higher leaders.

The book deals with strategy only, and although it is fully realised that the best strategical plans are of no value unless crowned with tactical success, the author is rightly at more pains to prove that tactical success produces merely temporary results unless based on a sound and far-reaching strategical plan.

Perhaps the outstanding feature of modern war between European Powers is the difficulty of making any campaign decisive. On the extended fronts formed by national armies, attacks must, as a rule, be frontal in their nature; and of all forms of attack the frontal attack is not only the most costly but the least decisive. From a study of Lieutenant-Colonel Neame's book it appears clear that a necessary condition of decisive success in a frontal attack is that there shall be, in some form or other, a "back wall" behind the enemy which will limit his power of retreat.

The most obvious example of this is the great German offensive of 1918, in which, as the author points out, their only hope of decisive success lay in being able to reach Abbeville, where our power of retreat would practically have come to an end; but he also gives an even more interesting example in connection with Ludendorff's operations against the Russians in September, 1914, in which he

attributes the decisive nature of Samsonov's defeat to the fact that his administrative services were inadequately organised and were incapable of bearing the strain of a retreat. In this case the idea of the "back wall" existed in another form.

The author devotes considerable space to the study of the strategic retreat, and to the power which the destruction of railways and roads gives to a retreating Army of disengaging and of regaining the initiative—a subject which in the writer's opinion is inadequately dealt with in most works on strategy.

This book is not only of great professional interest to soldiers, but the clear description of German strategy, commencing with the famous "Schlieffen Plan," should be of interest to many outside the regular army. The great dangers which we survived in 1914 appear even greater than was realised at the time, when it is seen by what a narrow margin we escaped having to face Ludendorf as Director of Military Operations under von Moltke in the opening phases of the war.

#### OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-1918.

##### **Vol. I. The Story of Anzac.** By C. E. W. Bean. (Angus and Robertson.)

This first volume of the Australian official History of the War carries the story from August, 1914, to the end of the first phase of the Gallipoli Campaign in May, 1915.

The opening chapters describe the wonderful feat of organisation which produced the A.I.F. and despatched the first contingent safely over 6,000 miles of sea; and although the spirit in which all the Dominions rose to the assistance of the Mother Country is now history, it must not be forgotten that at the time it came as a complete surprise to the rest of the world. The attitude of Australia was not long in doubt, for in a speech on August 3rd, 1914, Sir John Forrest, who was Treasurer of the Commonwealth, said: "If Britain goes to her Armageddon, we will go with her. Our fate and hers, for good or ill, are as woven threads," and this was typical of Australian sentiment from the very start.

The author does not mind admitting that the initial value of Australian troops on a European battlefield was, among British officers, a matter of some speculation, owing to their characteristic dislike for any form of restraint; and he explains that the great majority of young Australians were totally unconscious of any feeling of social superiority or inferiority. "The grown man was unaccustomed to commands untempered by the suggestion of a request. The only restraint he recognised before the War was self-imposed." From the first days of the landing at Anzac, however, he appears to have recognised the value and the necessity of military discipline, and yet to the end of the War he retained an individuality which was, no doubt, the secret of the amazing initiative which always existed in the lower ranks of the Australian forces. The only creed which was universal among them "was a romantic creed inherited from the gold-miner and the bushman, of which the chief article was that a man should at all times and at any cost stand by his mate."

The actual story of the landing at Anzac is told with a wealth of detail and personal experience which will make it of especial value to the youth of future generations who have not seen war, and this volume, on the whole, devotes but little space to criticism either of the conduct or of the nature of the operation itself. The author rightly condemns the fact that Sir Ian Hamilton's Administrative Staff were at first left in Egypt and were afterwards kept on the "Arcadian," when Sir Ian himself and his General Staff were on the "Queen Elizabeth," and



to this he attributes the failures in medical arrangements, as well as other failures in the actual landing itself.

From a tactical point of view, he considers that one of the chief errors committed was that impossible objectives were allotted to the "Covering Force," but the real causes of failure go deeper than this. A "Covering Force," to fulfil its task, must in the first rush gain ground to a sufficient distance inland to admit of guns and heavy stores being landed in comparative safety behind it. It must also do this with little or no support from shore artillery, for until it has done its job, the artillery cannot be available. This leads to the conclusion that in a landing in the face of real opposition the odds in favour of the defender are so heavy as to make the operation impracticable. Surprise is the essential condition of success. Neither at Anzac nor at Helles was a true covering position ever gained.

The volume is admirably produced, and the photographs actually taken at the time convey an impression of the difficulties of the operation which nothing else could do.

**Vol. VII. Sinai and Palestine.** By H. S. GULLETT. (Angus and Robertson.)

This volume deals with the Sinai and Palestine Campaign from the evacuation of Gallipoli in December, 1915, to the capture of Damascus and Aleppo and the capitulation of the Turks in October, 1918.

As the author is solely concerned with the part played in the campaign by Australian troops, the story naturally centres round the deeds of the Australian Light Horse; but his fear of making the Australian effort appear out of proportion is not realised, for he does full justice to the achievements both of British troops and British Commanders.

The story is most graphically told, and the frequent references to the deeds of former armies fighting in the Holy Land add very greatly to the interest of the narrative. The diagrams and illustrations are excellent, but the maps are disappointing, and the fact that they cannot be unfolded so as to be read in conjunction with the text makes frequent reference to them difficult.

There can be no doubt that the Australian Light Horse would have proved themselves troops of the very highest class in any theatre of war, but the conditions of the Palestine Campaign appear to have suited their characteristics exactly; for in this campaign, which included warfare of every type from a war of trenches to one of the most rapid and complete Cavalry pursuits of history, their adaptability was given full scope. To this characteristic Lord Allenby paid full tribute: "The Australian Light Horseman combines with a splendid physique a restless activity of mind. This mental quality renders him somewhat impatient of rigid and formal discipline, but it confers upon him the gift of adaptability, and this is the secret of much of his success, mounted or on foot."

The author's description of the Light Horseman and his horse will be borne out by anyone who has seen them. Of the former he says: "There is a preponderance of young men, long of limb and feature, spare of flesh, easy and almost tired in bearing, and with a singular native grace of posture." Of the latter: "They included every kind of animal: large sturdy ponies, crossbreds from draught Clydesdale mares, three-quarter thoroughbreds, and many qualified for the racing stud-books. As a consequence of such mixed breeding, they frequently offended the horselover's eye by their faulty parts; but one quality they all possessed which made them superior to the horses from other lands: they were all, or nearly all, got by thoroughbred sires." It was this fact, no doubt, which made them



game, even after being as much as 70 hours without water. Apparently the Light Horseman was anything but a good horsemaster at the start, and it needed both time and experience "to impress upon him the value of ceaseless grooming, of extreme care in the balanced packing of saddles, and of the greatest possible regularity in feeding and watering ;" but they proved "apt and willing learners."

The use made of the mounted troops in the Palestine campaign should have settled once and for all many points which had hitherto been subjects of acute controversy. When they got their full opportunity at the battle of Sharon, they were used to form a barrier of fire power 40 miles behind the enemy's lines, thereby limiting his power of retreat, and making operations which started with a frontal attack absolutely and completely decisive. It is difficult to see how such a result could have been achieved by any other arm.

On other occasions they were used with the greatest success in mounted attacks, but until they were armed with the sword they found themselves at a considerable disadvantage. So much was this the case that in the famous charge at Beersheba, in the third battle of Gaza, they carried their bayonets in their hands as the best substitutes which were available.

This volume is the most detailed and complete account which has yet appeared of the operations of the mounted troops in Palestine, and, in addition to being a fascinating story, is a very valuable professional study.

**Brassey's Naval and Shipping Annual, 1924.** Edited by SIR ALEXANDER RICHARDSON and ARCHIBALD HURD. (William Clowes & Sons).

With every issue of this invaluable vehicle of opinion and book of reference, its scope as well as its size is increased. The new volume consists of 677 pages. It is not only more fully illustrated than any previous issues, but the section devoted to the profiles of men-of-war and merchantmen as they appear on the horizon at sea has been further extended. *Brassey's Annual*, indeed, has become the indispensable handbook of the naval officer and the shipowner, and indeed of every one who is in any way concerned with the development of the fleets and mercantile marines of the world. In invading new fields, the editors have very wisely maintained the familiar features of the *Annual* as conceived by the First Lord Brassey. Commander C. N. Robinson is again responsible for a lucid chapter on the progress and development of the British Fleet, while the late Mr. John Leyland is the author of a series of comprehensive appreciations of the evolution of foreign fleets during the past year. Possibly the outstanding feature of the naval section of the *Annual* is an anonymous article on the Jutland controversy. An attempt has been made to examine in the light of history, as recorded in British and foreign works, "the fabulous stories" which have passed into circulation as to the manner in which this battle was fought. The writer has evidently studied with close attention all the literature which has appeared in this country, in Germany and elsewhere, and he has applied to it the analytical methods of the historian. It goes without saying that all his conclusions will not be universally endorsed, but at any rate his article is one to be read for its incisiveness, lucidity and freshness. His references to the handling of the battle cruisers in the early phase of the battle and his comments upon Admiral Jellicoe's deployment and subsequent "turn-away" cannot be ignored by serious students of naval history.

Other articles, though less controversial, are certainly not less interesting to readers who attempt to follow the evolution of naval power. Mr. H. G. Williams, a former member of the Royal Corps of Naval Constructors, who is now associated with the firm of Armstrong, Whitworth & Co., deals with the trend of design of

aircraft carriers, and Brigadier General R. K. Bagnall-Wild has a good deal to say about research and design in aircraft-engineering. What may be regarded as a complementary contribution is the chapter by Professor W. H. Eccles, F.R.S., on "The Progress of Directional Wireless." Mr. L. Miller reviews the development of the electrically propelled ship, and presents a complete record of all vessels of this type hitherto built—mainly, it is to be added, in the United States. Mr. Archibald Colbeck presents some rather original views on "the development of the blockade policy," while Mr. R. W. Dana reminds us of the useful work which has been done by the Institution of Naval Architects. Finally there is a short appreciation of the late Sir Julian Corbett. All plans of British and foreign warships have, it is stated, been revised by M. F. T. Blackman, a member of the Royal Corps of Naval Constructors.

Sir Westcott Abell, the Chief Surveyor of Lloyd's Register, once more contributes the first chapter of the Merchant Shipping Section, in which he traces the most recent developments of the merchant fleets of the world, devoting special attention to the rapid recovery of Germany as a sea-carrying Power. Sir Leslie Scott, the late Solicitor-General, contributes a comprehensive review of the progress which has been made in codifying and unifying the laws applying to merchant shipping. Mr. James Richardson, who has gained high prestige as the opponent of engineering policy, describes the remarkable progress of the motor ship, which in certain trades and on favourable routes is already displacing the familiar steamer. Mr. J. Howard Glover presents an historical record of the "tramp ship"; Captain Selwyn M. Day condemns the present inadequate training of merchant seamen; and Mr. G. S. Baker, who is in charge of the Experimental Tank at the National Physical Laboratory at Teddington, traces the influence of recent experiments on shipbuilding. Other contributors include Mr. B. Binyon; Dr. L. Isserlis, the statistician of the Chamber of Shipping; Mr. Cuthbert Maughan; Mr. R. W. Johnson and Mr. C. Ernest Fayle, the last-named discussing with knowledge "Shipping and Policy."

Nearly half the new volume of *Brassey's Annual* is devoted to profiles and plans of British and foreign ships, and statistical matter bearing on naval and merchant shipping affairs, arranged in a form facilitating ready reference.

**Jane's Fighting Ships, 1923.** Editors, OSCAR PARKES, O.B.E., M.B. and FRANCIS E. MACMURTRIE, A.I.N.A. (Messrs. Sampson Low, Marston & Co., London).

This volume, founded in 1896, is now in its 26th year of issue. If it still conforms to the plan upon which it was conceived by the late Mr. Fred. T. Jane, it bears no relation to the original issue. Every year it has appeared with some additional matter, and it is now as complete an encyclopædia of naval science as can be compiled. No other maritime State has any publication which can compare with it. Though, doubtless, the editors have felt the usual post-War difficulty of combining a high standard of production with an accessible price, they have, somehow or another, overcome the difficulty. The photographic reproductions, silhouettes and outline diagrams are truly admirable, and those who know anything of the inner workings of printing will regard them as symbols of the restoration of British industries. The naval forces of every country are grouped by the classes of ships; the full "beam-on" photograph of one ship of each class is given, together with deck and section plans of the armour and armament. No available detail is omitted. In the smaller types, such as submarines and destroyers, all relevant facts with regard to fuel capacity are tabulated in full. This illustrated

classification covers every naval force afloat; and to it are added, in the case of foreign navies, ordnance tables showing the guns mounted, the weights of every kind of shell carried, the bursting charges, and details of the muzzle energy. The book is, therefore, as complete a comparative catalogue of naval power as exists in the world. A word should be added about its practical use. Those who are ignorant of staff work fail to understand that, though naval strategy and tactics are spoken of as general sciences, no expert studies them except through concrete problems. The vital concern of every staff officer is always that of performing some particular operation in the teeth of a certain, estimated opposition. Now, whatever the issue, the degree of precision to which staff work can attain is in direct proportion to the accuracy with which the expected opposition can be measured. It is only when this is grasped that the indispensable character of such a book can be understood. No operation in war could possibly be mapped out, nor the necessary forces be allocated for its execution without consulting such a compilation. If plans are worked out without it, it is only because those responsible know the relevant portions by heart.

**Elementary Imperial Military Geography.** By CAPTAIN D. H. COLE, M.B.E., Army Educational Corps. (Messrs. Sifton Praed and Co.)

The object of this book is to present students of war with a summary of those economic and geographical factors which are most closely related to problems of Imperial defence, and it should be said at once that the author's method is truly admirable. He begins by surveying the flow of essential supplies throughout the empire; the products with which it could supply itself without assistance from other countries, and those for which it is dependent upon foreign sources; and then passes to a detailed examination of the lines of communication along which these supplies must be carried. "By following these routes on the map it will be seen that they could be stopped, or protected, most easily and economically, by the selection of certain points as naval stations." Captain Cole then classifies these stations into: maritime gateways, such as Gibraltar and Singapore; junctions of trade routes, such as the Cape Verde islands; turning points on a trade route, such as Simon's bay; and, flanking positions near trade routes, such as Halifax. He analyses the lines of communication in the light of this classification, with a view to ascertaining what degree of control, actual or potential, Great Britain possesses upon each. Captain Cole is careful of drawing conclusions, but, where he does so, his words are at least suggestive. After surveying the ocean highways in the Atlantic, and reviewing the international agreements by which they are principally affected, he concludes: "The general results of the comparative situation are that the Gulf of Mexico and the Caribbean Sea are now enclosed by a ring of American stations and possessions. Prior to the development of American sea power, this was a matter of little importance; but the naval balance in these waters has altered—particularly in reference to Jamaica." Words like these are a suitable corrective to persons who refuse to admit that the growth of America's naval strength is a menace against which we are unprotected by any defensive system, political or military. The chapter given to oil supplies brings out the same unpalatable fact from another aspect. If American and Mexican oil is denied us, the rest of the world will barely give us what we should require in war; so that new sources, within the Empire, are a vital concern to us. One of the most promising of these latter are the recently discovered Canadian oil fields in the Mackenzie river valley, and as it is extremely difficult to carry away oil from a zone which is for about nine months in the grip of a severe winter, pipe

lines will probably be used to transport it to the coast. It sounds almost incredible, and yet everything seems to show that the mouths of these pipe lines will eventually be in American territory.

The last part of the book is devoted to the constitutions, policies, and military organisations of the Empire's constituent parts. The book is certainly an admirable groundwork for studying the military problems of Imperial defence; but one does regret that a separate chapter was not devoted to the shipping resources of the Empire, and their adaptation to war; for of all imperial problems this is one of the most important. Any campaign upon which we may be engaged will be waged oversea; and a survey of the amount of shipping necessary for prosecuting a military effort in the theatres which the author describes, would have been at least instructive. Judging by his thoroughness and orderly method of exposition, he doubtless had reasons for the omission, but it is difficult to understand what they were.

**Neill's Blue Caps.** Vols. 1 and 3. By COLONEL H. C. WYLLY, C.B. (Gale and Polden, Ltd.)

It is impossible to read these two volumes and not sympathise with a regiment which, after so long a record of distinguished service to the Empire, has been disbanded. It is perhaps only soldiers who can really understand the feelings of the Blue Caps, but the most unsentimental civilian must have some regret at the passing away of a battalion which, as the Madras European Regiments, helped to make British India and afterwards, as the 1st Royal Dublin Fusiliers, had so distinguished a record in the South African and Great Wars.

This history, however, is a worthy memorial of such a regiment. The two volumes are the work of Colonel Wyllly, who is to be warmly congratulated and deserves the thanks of the Blue Caps. They are well printed and provided with a number of interesting engravings, maps and photographs.

The first volume deals with the history of the Madras European Regiments from 1639-1826 and should be studied by all who take an interest in British India, for it may be said of these hundred and ninety years that the history of the regiment is the history of India. The story of the origin of the regiment and its early records are a convincing proof of the statement that we acquired our Empire by chance—and, be it added, by the grit of the men on the spot. It was in 1629 that a small armed force was raised for the purpose of guarding the trading settlement at Madras. The directors of the Company had no intention of territorial expansion: they seem to have had no policy and little foresight; but the sheer force of circumstances drove them into war with neighbouring native potentates and the French. As a result we gained India.

For the men of British race in India it was a long struggle, whether they were soldiers or civilians. Mistakes were committed, "regrettable incidents" frequently occurred, and there were times when it looked as if nothing could save Madras and Fort St. George from utter ruin. Yet throughout the story runs, like an ever recurring theme in an opera, the constant example of the valour and endurance of the British race. The names that the reader meets in this first volume are ones to stir the most sluggish imagination and suggest the very essence of romance. Who can read of Clive, Stringer Lawrence, Eyre Coote, Dupleix and Lally, or of Arcot, Plassey, Wanderswash and Seringapatam (to mention a few) without a feeling of enthusiasm? Clive and Stringer Lawrence were officers of the Madras European Regiment and, while part of the Corps went with Clive to bear a principal share of the battle of Plassey, the remainder stayed at Madras to withstand the

onslaught of the French under Lally and eventually to win the decisive battle of Wandersash. Later on the regiment took part in the siege of Pondicherry, the Mahratta war, and the first expedition to Burma.

Apart from the great interest of these operations, which are well described, the reader can study the sometimes extraordinary methods adopted by the East India Company in order to raise and maintain their armed forces. There are many quaint but interesting extracts from official minutes, from letters and diaries which describe the various "establishments" of the Madras European Regiment and changes in the uniform. It is this part which makes the book so interesting that it should appeal to a far wider circle than the Blue Caps.

On the other hand, volume three of this regimental history will appeal mainly only to the past members of the regiment. It is not that there is any loss of interest or that the operations are not just as vividly described, but the greater part of the volume deals with the Great War, and the actions of one battalion can only form a small part in that world drama.

There is, however, an important exception to this generalisation. The 1st Royal Dublin Fusiliers played a prominent part in the wonderful landing at Gallipoli, one of the most extraordinary achievements of the British Army. There is still much to be learnt about this landing and hence the account of the landing of the battalion is brimful of interest. Perhaps the most striking thing about the operation is that apparently nobody, from the Staff to the regimental officers, seem to have realised beforehand that they were attempting something so much out of the common as to amount to an epic. It is a curious coincidence that the 1st Royal Dublin Fusiliers should have departed for their last year from Madras, the city for whose protection they were raised two hundred and eighty odd years previously. On their return to England they were incorporated in the 29th Division and took part in the memorable assault on V Beach on April 25th, 1915. Part of the battalion were sent in boats, while the remainder were in the "River Clyde," a ship which is now sure of immortality. Nothing could be better than Colonel Wyllie's account of this heroic failure, in which the battalion lost 10 officers, 152 other ranks killed and 13 officers, 329 other ranks wounded.

The battalion even after the above severe losses took its part in the subsequent fighting in the Peninsula, including the operations round Suvla Bay. Then came the evacuation—a military achievement which is only less wonderful than the landing. Finally the 29th Division found its way to France (March, 1916) and the battalion took its share in the battles of the Somme, Arras, and 3rd Ypres. After the last battle the battalion was transferred to the 16th Division, in which it became one of the units of the Dublin Fusilier Brigade. Then followed the great German offensive of March, 1918, and subsequent months and then that triumphant rally of the British Army, with the final crumbling of the German armies.

The last part of Volume III. tells the tragic story of the disbandment of the Royal Dublin Fusiliers and concludes with the sad ceremony of handing over the colours at Windsor Castle.

**The Dutch Alliance and the War against French Trade, 1689–1697.** By G. N. CLARK, M.A. (Messrs. Longmans, Green and Co.) (Manchester University Press. Historical Series).

The War of the League of Augsburg is an episode in our maritime history which has been very little examined and the economic consequences of our wars with France have hardly been examined at all. As Mr. Clark's book deals with both



it can be regarded as a really valuable contribution to historical science. Though the author has left naval operations alone, he has thrown light upon what has hitherto been a very obscure incident in the maritime policy of Great Britain: the attempt to cut off all trade with an enemy origin or destination which was begun in 1689 and pursued until 1693, when it was formally abandoned by a decision of the Council. The circumstances in which that attempt was made were as follows. The declaration of war against France in 1689 started a new epoch in our naval policy and our major strategy. The three Dutch wars had been purely naval: two maritime Powers had confronted one another across a narrow stretch of water, through which their vital communications ran. The aims of each side were identical: to get sufficient control of the ocean highways to secure the safe passage of their most important convoys, and to prevent their opponents from doing the same. Operations, policy and strategy were purely pelagic; for the issue at stake was lost or won on the blue water. The year 1689 presented us with a different problem. We were then at war with a continental Power, which we could only master by Continental operations. What part were the naval forces of the coalition against France to play in the struggle; and what was to be their contribution to the final result?

The blockade proclamation of 1689 was our first solution. It announced that the fleets of the maritime Powers, France and Holland, had been ordered to "block up" the ports and harbours of the most Christian King, and to seize all ships with an enemy origin or destination. By this means it was evidently hoped that the fleets of the naval Powers would cut off all French supplies, whilst William, at the head of an enormous coalition of continental States, would overpower the French armies near their frontiers.

It was a crude and ill-conceived notion, which ran so counter to the international law of those days that neutrals can hardly have been expected to tolerate it. Judging by the most important treaties of commerce and navigation signed during the seventeenth century, neutral commerce had privileges which it does not possess to-day. First, contraband was very rigidly defined, and the lists varied hardly at all; secondly, although "free lists" were variable, as they had generally been dictated by the commercial interest of the contracting Powers, neutrals had a far stronger position than they would have to-day, if they claimed that food, wine, and naval materials were exempt from capture; thirdly, and most important, the right of visit and search was bound in by regulations which no longer exist. More than a hundred years later, Lord Stowell stated that visit and search of all neutral ships was an absolute, unquestionable, belligerent right; Sir Charles Hedges, the president of the Admiralty Court in 1689, could not possibly have said so. By a system of "passes" or Governmental certificates, granted to masters and owners, neutral merchant captains were free from any close inspection of their cargoes. If they exhibited those passes, their hatches could not be opened, and they could proceed on their voyage without further trouble. The law of blockade, to which the Allied proclamation appealed, was very severe upon maritime belligerents. Purely naval blockades were only just beginning to be possible; and the lawyers who framed the treaties of those days evidently did not consider a place to be blockaded unless it were completely cut off by sea and land; for the words they used were very explicit. Some treaties spoke of blockaded ports as "*loca obsidione circumsesta*"; others, of "*loca obsidione cincta, circumsesta, et investita*"; and neither formula can possibly be said to describe a port watched from its seaward approaches by a hostile fleet, and clear of enemy entrenchments on its landward side. Bynkershoek drew attention to the difference between blockades as defined by treaty, and as practised by naval Powers; but admitted that com-



merce to or from a port or coastline might be stopped, so long as the sea approaches were regularly watched and patrolled by a blockading fleet.

But as it was quite outside the power of Great Britain and Holland to set up a regular patrol off the French harbours, the blockade proclamation of 1689 was little less than a challenge to existing neutral rights: to stop all neutral commerce with France by intercepting it on the outer seas was illegal; to set up a regular blockade of French harbours, which alone could have justified the policy, was not a feasible operation of war.

Mr. Clark's book deals with the attempt made by the maritime Powers to set up a rough working equivalent for the blockade which they were unable to enforce by naval means. To do this two things were necessary. First the Continental Allies had to issue strict regulations against trading with France, and enforce them; and, secondly, arrangements had to be made whereby Swedish and Danish cargoes intended for France should be diverted to English harbours and bought up. In his examination of the negotiations between the Allied and neutral chancelleries. Mr. Clark describes the mechanism of European trade with which those negotiations were concerned, and shows how very difficult it was for Powers at war to stop trading with the enemy. Each country had its own problem. English merchants were evidently working up a connection in the general carrying trade of Europe; and in 1691 the Spanish ambassador complained of "an English ship, the 'Leopard,' which was in the habit of lying off Puntales, near Cadiz, and taking on board French goods from Genoese ships and afterwards putting them on shore in Spain." This was obviously a special instance of an extensive practice. Another illegal trade, in wool, was vigorously carried on between the Kentish coast and Boulogne and Dunkirk. All classes of society were interested in it; and Mr. Clark quotes a contemporary authority who states that "from the nobility downwards to the most mean of those maritime countries over against France all contrive it more or less."

Clandestine Dutch trade seems to have been more ramified even than ours. "Straightforward smuggling went on all through the war, sometimes with armed force. Harbour officers were bribed to open their booms and let in ships at night. Neutral ships carried goods to and fro between the ports of the Dutch and French. The customs were bribed." In addition to this simple method of fraud, the Dutch merchants practised collusive capture, trading under neutral flags, fictitious sales of their ships and cargoes to neutrals; and were much interested in an illicit trade in French wines, which, after being carried to Spain, were "put into Spanish vats for export with a sworn declaration of Spanish origin. A declaration could be bought for a piece of eight . . ." But the difficulties of the British, Spanish and Dutch Governments were small in comparison with the Empire's. The Emperor's Ministers seem to have co-operated loyally with the maritime Powers by issuing a set of "avvocatories" to prevent trading with France; but those edicts could not be enforced in the Germanic Confederation. Throughout the war, the Hanse merchant fleets carried Swedish, Danish and German goods to France; and brought back French cargoes in return. Had there been any system of law-reporting in the Admiralty courts of the period, the extent and persistence of the Hansa trade in French goods would have been elaborately recorded. Such documents as exist are significant enough.

In the autumn of 1697 a large Swedish convoy was brought up in the Channel and the ships and cargoes ordered to be judged in the prize courts. Lynskrona, the Swedish envoy, protested vigorously, that the arrest was contrary to treaty law, as the ships had been provided with passes from the Swedish Government, and were under convoy. Sir William Trumbull, the secretary to the Council, asked Sir Charles Hedges to answer the complaint, which he did; and the correspondence

has survived. In his review of the condemnations made and the reasons for them Sir Charles throws light upon the transactions of the Hansa merchants, and their illicit trade between Germany and France; and, from the amount of information in his letters, one can judge what the gain to historical science would have been had full legal reports of Admiralty cases been prepared. The correspondence cannot be analysed here; but it is rather surprising that Mr. Clark should have treated it so briefly, for its significance is undoubted. Mention has already been made of the "passes" which conferred such privileges upon neutral commerce. Sir Charles's letters show how rarely the passes found on board neutral vessels conformed to the standard forms annexed to treaties of commerce and navigation; and are, on that account, a real beacon mark in the history of maritime law. So long as vessels which carried passes were exempted from visit and search, as we now understand it; so long, in fact, as belligerents were unable to satisfy themselves that neutral trade was innocent, then, in theory at least, the duty of stopping contraband rested with neutral Governments. The transfer of this obligation from Powers at peace to Powers at war is one of the big changes in the principles of international law; and Sir Charles Hedges's letters are a record of the change. On this account one cannot agree with Mr. Clark that the correspondence has "no significance except as illustrating the difficulty of working the system."

Faced with these accumulated difficulties the British drew up a plan of stopping all French mails. The fortunes of this project are rather obscure. Heinsius admitted, in a letter to William, that, if it could be made effective, French commerce would be at a standstill; but there seems to have been considerable Dutch opposition from other quarters. If the plan were carried out Dutch correspondence with Spain would have passed through England; and to this the States-General were not ready to agree. In Mr. Clark's opinion the project was never enforced; but it seems to have brought a new postal route into existence. At the end of the war, Dr. Aglionby, a member of the British embassy at the Hague, was sent on a postal mission to France; and by then there was a direct postal service between Falmouth and Coruña, which was the direct outcome of our attempt to stop French mails.

After an exhaustive and interesting review of the enemy trading Acts of the war, Mr. Clark deals with the measures taken against neutral commerce. An attempt was made to enforce the blockade proclamation of 1689 by empowering our fleet commanders and privateers to stop all commerce with a French origin or destination; but it met with unflinching resistance from the Danes and Swedes. At the very beginning of the war the two northern Crowns, though divided by long rivalry, so far forgot their differences as to announce that their fleets should convoy one another's merchantmen: this step was soon followed by others, and the treaties of 1691 and 1693, whereby the Danish and Swedish Governments bound themselves to maintain free trade with France, and to assist one another, were the outcome. In order to meet this diplomatic opposition Mr. William Duncombe, the British envoy to Sweden, and Lord Dursley, our ambassador at the Hague, tried to compound special agreements with the northern Powers. They were unsuccessful; but their proposals have an exceptional interest, in that they seem to have been the lineal ancestors of the "rationing system," which was the basis of our method of cutting off German supplies in the late War. We endeavoured to get the Swedes to agree to an arrangement whereby a certain, specified, number of vessels should trade with France during the year; and we also tried to buy up all Swedish cargoes of tar and ship-building materials from the trusts which controlled them. Mr. William Duncombe was very depressed at the failure of his efforts, which were broken down by the pressure brought by the French upon the merchants with whom he tried to conclude the bargain. In his long and interesting report upon his

embassy he stated that the "only truth and sincerity" with which he could "charge them [the Swedes] in ye whole affaire" was to break down the blockade proclamation if they could. Mr. Clark inclines to the view taken by British diplomatists of the day that the attempted blockade failed in its objects. He is doubtless right; but indirect evidence seems to show that it was more effective than was imagined at the time. Was the French Government's failure to re-equip its fleet after La Hogue due, solely, to financial stringency, or did our persistent effort to shut off French supplies of pitch, tar and ship-building materials produce a real scarcity in the French dockyards? We are not yet in a position to say; for the question has not yet been examined by French experts: the coincidence of known facts is, none the less, a little significant.

The conclusions to which Mr. Clark's elaborate investigations have led him are, of course, of great importance. At the close of his chapter on neutral commerce he states that "it is not easy to summarise the total effect of these dealings on the law and custom of neutral rights"; and then adds: "The collapse of the attempts to enforce the convention of 1689 is, however, a real landmark. No attempt to extinguish the trade of a hostile country has since been made in the same form, or rather with the same absence of legal form and justification. Although naval Powers have more than once returned to the hope of making the same attempt in practice, they have, at least, accepted the necessity of doing so by the extension of rules, which ostensibly admit the general right of neutrals to innocuous trade with a belligerent Power." The statement is as sound as it is sober; but it might be added that the convention of 1689 was as much a beacon mark in our maritime policy as an abortive attempt. A hundred years later our declaration of war against France was accompanied by an announcement that we intended to stop all commerce with a French origin or destination. This return to a policy which had been more or less discarded for a hundred years is remarkable; and one may suggest that a very important factor had been steadily at work in the intervening period: the progress of ship construction. The blockade of 1689 would probably have been enforced in legal form (at all events after La Hogue had given us a working command of the sea) had the fleets of those days been able to keep a proper watch upon enemy ports. They could not do so, because they did not possess the type of vessel used for the purpose in later wars; for the light, watching frigates of high sea-keeping capacity, which, later, maintained the blockade of Brest and Toulon, did not exist in 1689. The progress of ship construction and design, during the eighteenth century, made the regular blockade of enemy harbours possible. Squadrons became more and more able to occupy the approaches to a harbour permanently, and to assimilate their action to that of an army on land which has seized a piece of territory and holds it. In 1793 places blockaded from the sea were not, it is true, "*obsidione circumscissa*," but they were far more nearly so than they had been in 1689; and a considerable extension of belligerent rights accompanied the change. On paper these rights altered but little: in practice they advanced by slow, imperceptible encroachments. In conclusion it should be said that Mr. Clark's book cannot be too highly recommended to every serious student of war and policy. It deals with matters which have hitherto been left alone, and shows their importance; it opens out new avenues of study in our maritime history; and, should anybody decide to examine the naval operations which the author has purposely refrained from analysing, Mr. Clark's admirable study of the trade of Europe in 1689 will supply a solid and permanent basis upon which to work.

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